

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Eugene District Office
P.O. Box 10226
Eugene, Oregon 97440-2226

1792A
EA-01-07
Hills Creek/Little Fall

January 16, 2001

Concerned Citizen,

The McKenzie Resource Area of the Eugene District Bureau of Land Management has completed the Environmental Assessment for a proposal to implement various road decommissioning and maintenance projects in the Hills Creek / Little Fall Creek Watersheds.

You have expressed an interest in receiving copies of Environmental Assessments for district projects. Enclosed is a copy of the Environmental Assessment for your review and any comments. Public notice of this action will be published in the Eugene Register Guard on January 17, 2001. The public comment period will end on February 16, 2001. If you have any questions concerning this proposal, please feel free to call Don Wilbur at 683-6994.

Comments, including names and street addresses of respondents, will be available for public review at the district office, 2890 Chad Drive, Eugene, Oregon during regular business hours (7:45 a.m. to 4:15 p.m.), Monday through Friday, except holidays, and may be published as part of the EA or other related documents. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Sincerely,

Emily Rice, Field Manager
McKenzie Resource Area

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE

ENVIRONMENTAL ASSESSMENT NO. OR090-01-07

**Implementation of the Hills Creek/Little Fall Creek
Transportation Management Recommendations**

1.01 PURPOSE AND NEED FOR THE PROPOSAL

1.1 Purpose of the Proposed Action

The Bureau of Land Management (BLM) proposes to implement various road decommissioning and maintenance projects in the Hills Creek / Little Fall Creek Watersheds. The Hills Creek/Little Fall Creek watersheds are located approximately 5 miles southeast of Springfield, Oregon and comprise about 52,235 acres, of which approximately ten percent (10%) of the acres are managed by the Bureau of Land Management (BLM). A Watershed Analysis and Transportation Management Recommendation (TMR) were prepared to help implement the Northwest Forest Plan (NWFP), but are not decision documents.

Control and prevention of road-related runoff is considered to be one of the most important components for improving watershed conditions and meeting Aquatic Conservation Strategy Objectives. Watershed restoration is a key component of the Aquatic Conservation Strategy of the Northwest Forest Plan ROD/FEIS (NWFP). As stated in the NWFP, road decommissioning functions as watershed restoration by:

- helping to restore the natural water flow pattern of the watershed.
- helping to restore the natural stream side function (for stream side roads) by increasing stream side vegetation, increasing stream shading, and creating future large woody material.
- helping to restore fish passage.
- improving wildlife habitat.

Implementation of the Transportation Management Recommendation (TMR) is what constitutes the Proposed Action in this environmental analysis. The TMR

identifies a system of arterial, collector, and local roads to be maintained for future use, and also describes opportunities to close roads no longer needed for access. This work would be implemented over a 5-year period. See Appendix A for project priorities and rationale.

1.2 Need for the Proposal

Many stream-side and some mid-slope location of roads proposed for treatment are contributing to increased sediment loads in habitat used by threatened or endangered fish species. By intercepting storm runoff, these roads have potential to act as extensions to the stream system.

Some roads in the analysis area have not been routinely maintained and are in an eroded or degraded condition. Some roads will be needed in the future with an appropriate level of maintenance to protect natural resources such as water quality and fish habitat, and to provide safe access to the public. Some existing roads will not be needed for long-term access and could be closed to protect or restore natural resources as well as reduce the cost of BLM road maintenance in the analysis area.

1.3 Objectives of the Proposal

- < Control and prevent road-related runoff and sediment production, thereby protecting or improving water quality in the watershed.
- < Remove or replace stream crossings that are barriers to fish passage.
- < Reduce road maintenance costs and reduce disturbance to wildlife by closing roads no longer needed for management purposes.
- < Meet the Aquatic Conservation Strategy Objectives (S&G B-11) in the NWFP Record of Decision as shown in Appendix B.

1.4 Scope of this Environmental Analysis

1.4.1 History of Planning and Scoping Process

The scoping process identified the agency concerns relating to the proposed projects, and defined the issues and alternatives that would be examined in detail in the EA. The public was informed of the planned EA through a project summary publication called the Eugene BLM “*Eye To The Future.*” This was mailed out to 250 people in July 2000.

The Analysis File contains additional information used by the interdisciplinary team (IDT) to analyze impacts and alternatives and is hereby incorporated by reference.

1.4.2 Conformance with Land Use Plans

This Environmental Analysis (EA) is tiered to the *Record of Decision (ROD) for Amendment to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl*, April 1994, and the Eugene District Record of Decision and Resource Management Plan (RMP), June 1995. Actions described in this EA are in conformance with the Aquatic Conservation Strategy (ACS) Objectives listed on page B-11 and the Standards and Guidelines for Riparian Reserves on pages C-30 to C-38 of the Northwest Forest Plan (ROD). These documents are available for review at the Eugene District Office of the BLM, Eugene, Oregon.

1.4.3 Issues Studied In Detail

Issue 1 - What are the impacts to terrestrial Threatened and Endangered Species?

Threatened and Endangered Species in this area are bald eagles, and northern spotted owls.

Issue 2 - What will be the impacts to public access on existing roads that will be used on a long-term basis, and closing existing roads not needed on a long-term basis?

Transportation management actions proposed in the Hills Creek/Little Fall Creek TMP could change access to public land within the watershed.

Issue 3 - What are the effects of road management activities on water quality of nearby streams, and water quality in these two 5th field watersheds?

Proposed road management activities could impact water turbidity.

Issue 4 - What are the effects of road management activities on the habitats of fish and other aquatic species?

Spring chinook salmon, a Threatened Species, is found in Little Fall Creek. Road management activities could impact these fish as well as other

fish/aquatic animals and /or their habitats downstream from road/stream intersections.

1.4.4 Issues Eliminated From Detailed Study

- What in-stream habitat restoration activities are appropriate for these watersheds?

This issue was not analyzed because the focus of this EA is the implementation of Hills Creek/Little Fall Creek Transportation Management Plan. This EA will address road related projects and not restoration of in-stream habitat complexity.

1.5 Decisions That Must Be Made

- < The decision maker will decide whether or not to implement an alternative, and if so, which alternative.
- < The decision maker will determine if the selected alternative would have significant environmental impacts not already addressed in the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (1994) and the *Record of Decision and the Eugene Resource Management Plan* (1995).
- < The decision maker will determine if the selected alternative would constitute a major Federal action having a significant effect on the human environment.

1.6 Applicable Regulatory Requirements and Required Coordination

Federal agencies must meet or exceed the following regulatory requirements when selecting an action:

- < The objectives of the Aquatic Conservation Strategy, Standards and Guidelines, and Best Management Practices, as cited in the Eugene District ROD/RMP and the Northwest Forest Plan.
- < The Clean Water Act, as amended in 1987.
- < The Clean Air Act of 1990, as amended.
- < Oregon State Water Quality Standards.
- < Oregon State Forest Practices Act.
- < National Historic Preservation Act of 1966.
- < Endangered Species Act of 1973

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Introduction

This section describes alternatives identified by the interdisciplinary team, alternatives eliminated from detailed study, and a comparison of alternatives.

2.2 Detailed Description of Alternatives

2.2.1 Alternative A - No Action

Existing road maintenance levels would continue at current levels. There are five locations identified on BLM land where sediment is delivered to the stream system via the existing road prism during wet weather, and these situations would remain until road maintenance crews are working in the area to fix the problem. Barriers to fish and aquatic life migration noted at seven sites would remain indefinitely. Use of natural surfaced and infrequently maintained roads by vehicles could continue during all times of the year, and erosion of those roads may continue and possibly worsen with time.

2.2.2 Alternative B (Proposed Action) - Implement Hills Creek/Little Fall Creek Transportation Management Plan.

Road maintenance levels and road closures shown in the Transportation Management Recommendations (See **Appendix A** for the Transportation Management Recommendations) would be implemented over a 5-year period. Approximately 19.5 miles of road would be maintained and in some cases upgraded or repaired for future long term use.

About 11.33 miles of existing roads determined to fit the criteria in the “Transportation Management Recommendations” (See **Appendix A**) would be decommissioned and left in an erosion resistant condition. About 9.46 miles would be fully decommissioned and removed from the road inventory. These road closures would be implemented to reduce road maintenance costs and in many cases reduce road surface erosion near stream channels. Existing barriers to fish and aquatic life migration would be removed in conjunction with either road repair work (4 sites) or road closure work (3 sites).

The rationale for road decommissioning is based on the need to; (1) minimize erosion on seldom used BLM roads; (2) remove culverts adding sediment or have the potential to fail and add sediment, or act as barriers to fish; (3) decommission roads that are not needed for management actions within the next 10 years; (4) reduce

access to trespass dumping; (5) address public safety concerns due to poor condition of roads; (6) reduce disturbance to wildlife; and (7) meet all Aquatic Conservation Strategy Objectives.

2.3 Design Features

2.3.1 Design Requirements

1. Site specific surveys for Survey & Manage and Protection Buffer species would not be required for road decommissioning due to lack of habitat. Site specific surveys for Survey and Manage and Protection Buffer species would be conducted if any habitat for these species could be negatively affected by culvert replacement activities. Surveys would be completed using current survey protocols and current management recommendations would be applied. Specific activities (i.e., replacing an individual culvert) would not occur if negative effects to these species could not be eliminated.
2. Prior to the initiation of project work, notification would be given of potential road delays or closures to adjacent land owners. Appropriate safety procedures would be used to control traffic in project areas involving roadways used by the public.
3. For any proposed project sites within a quarter mile of suitable spotted owl habitat or known sites, no operations would occur during the critical nesting season (March 1 - July 15), or during the entire nesting season (March 1 - September 30), depending on site specific conditions. This seasonal restriction could be waived by a wildlife biologist if surveys document that owls are not nesting within 0.25 mile of proposed activities.
4. No activities would occur within 0.25 mile (0.5 mile line of sight) of suitable habitat within the Bald Eagle Habitat Area during the bald eagle nest period (January 1st - August 31st). This seasonal restriction could be waived by a wildlife biologist if surveys document that eagles are not nesting within 0.25 mile (0.5 mile line of sight) of proposed activities.

2.3.2 Permanent Roads

1. Where the potential for sediment delivery exists, the road(s) would be surfaced with rock aggregate to minimize road surface erosion.

2. Additional relief drainage features would be installed (cross drains, drainage dips, and/or lead-off ditches) to reduce the amount of sediment delivered to streams via the cut slope ditch. Avoid discharging relief drains into erodible or unstable slopes, or into stream channels. Install relief drainage features immediately upgrade of stream channels to prevent cut slope ditch sediment from entering the stream.

3. Existing road stream crossings would be replaced that are (1) failing and otherwise depositing excess sediment into streams, (2) undersized and located in an area with potential for slope failure, and (3) prevent fish passage.

4. Replacement culvert crossings would be sized to accommodate a 100-year flood event. Keep culverts as wide as the channel if possible, and at the same gradient or slightly greater if possible. Place rip-ap on fill material next to permanent culvert inlets and outlets. Design for the smallest fill possible and maintain vegetation at the margins of the stream channel.

2.3.3 Road Closures and/or Rehabilitation

1. “Decommissioned” roads would be closed, but could be used again in the future. Prior to closure, the road would be prepared to avoid future maintenance needs; the road would be left in an erosion resistant condition by establishing drainage, removing fills in stream channels and potentially unstable fill areas. Exposed soils would be treated to reduce sedimentation. The road would be blocked to vehicle use.

2. “Fully Decommissioned” roads would be permanently closed with no future use anticipated. Cross drains, fills in stream channels, and potentially unstable fills would be removed to restore hydrologic flow. Subsoiling and planting may be prescribed to reestablish vegetation. The road would be blocked to vehicle use, and would not require future maintenance and would be removed from all road inventories.

- In-channel fill would be removed during low flow and prior to fall rains. Activities of mechanized equipment in the stream channel would be limited to the area that is necessary for installation and removal operations.

2.4 Alternatives Considered But Eliminated From Detailed Study

Alternatives that simply varied design features or combinations of road prescriptions from the Transportation Management Plan, but would not result in measurable differences from the Proposed Action in impacts, were considered but not analyzed.

2.6 Comparison Summary of the Predicted Environmental Effects of All Alternatives.

| Issues | Alternative I No Action | Alternative II Proposed Action |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Effects to T & E | <p>Dust could reduce pollination of vascular plants. Roads could limit dispersal of certain species.</p> <p>Disturbance remains at current levels in nesting habitat, possibly negatively affecting reproductive success.</p> <p>Roads would remain unsuitable habitat and serve as gaps in suitable habitat.</p> | <p>Fewer roads would eventually increase habitat for vascular plants and provide for more dispersal.</p> <p>Disturbance would be reduced in nesting habitat, possibly increasing habitat suitability and reproductive success.</p> <p>Roads would provide increased amount of suitable habitat and decrease the gaps in suitable habitat.</p> |
| Effects to Public Access | None | ** 1.03 miles of public access would be decommissioned. |
| Effects to Water Quality | Roads would continue to erode and deliver sediment from roads identified in the TMP. | Repairs would be made on eroding roads that are needed for future use. Roads no longer needed would be closed to minimize future erosion. |
| Effects to Aquatic Habitat | The perpetuation of a degrading situation (sedimentation being contributed into streams from roads) would continue. | Roads not needed would cease to deliver sediment, and streams would have culvert barriers removed. Roads remaining on the landscape would be upgraded and maintained to minimize sediment inputs. Any barriers to migration would be removed. |

** Access to BLM lands in Hills Creek and Little Fall Creek are through private lands that are gated. BLM's legal access is under Right-of-Way Agreements, which do not provide for public access. There are 1.03 miles of public access roads in the analysis area, and 1.03 miles would be impacted by Alternative II.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

Under the National Environmental Policy Act (NEPA), the analysis of environmental conditions is directly related to the expected environmental consequences of the proposed alternatives. NEPA requires that the analysis address those areas and components of the environment with the potential to be affected by the alternatives analyzed; locations and resources with no potential to be affected need not be analyzed. The environment includes all areas and lands that might be affected, as well as the natural, cultural, and socioeconomic resources they contain or support.

3.2 Description of the Project Area

The Hills Creek/Little Fall Creek analysis area are two 5th field watersheds within the Willamette River Basin and the Willamette River physiographic province. The analysis area includes the headwaters of Hills Creek and Little Fall Creek drainage. Hills Creek flows directly into the Middle Fork of the Willamette River near Jasper, Oregon. Little Fall Creek flows into Fall Creek, which is a tributary of the Middle Fork of the Willamette River. Detailed information describing the area is available in the Hills Creek/Little Fall Creek Watershed Analysis (USDI 2000). A location map is in **Appendix B**.

3.2.1 Land Use Allocation

Roads in the analysis area are located on Matrix lands and segments of roads are in Riparian Reserves.

3.2.1 Threatened & Endangered Species, and Survey & Manage Species.

Threatened & Endangered Plants

There are no threatened or endangered plant species in or on the project site.

Bald Eagle (*Haliaeetus leucocephalus*)- Threatened

A total of approximately 90 acres of the Fall Creek Bald Eagle Habitat Area (BEHA) is in the Hills Creek/Little Fall Creek Watersheds. The 33-acre portion of the BEHA within Section 31 is currently 40 years old and is not currently suitable habitat for bald eagles. The 57-acre portion of the BEHA within Section 23 is currently 140 years old and currently provides suitable habitat for bald eagles. There is no suitable habitat for bald eagles in these watersheds that is outside of the BEHA. There has been no incidental sightings or other documented use of the Hills Cr. / Little Fall Cr. watersheds by bald eagles.

Northern Spotted Owl (*Strix occidentalis caurina*)- Threatened

Suitable nesting habitat for this species is mature forest (generally greater than 80 years old) with high canopy cover, an open under story, large down logs and large snags. There are four known Northern spotted owl site centers within the Hills Creek/Little Fall Creek Watersheds. Two of these site centers have had repeated sightings of single owls and two have had repeated use by owl pairs. These four sites each have a total of 433 acres of Unmapped Late Successional Reserve (LSR) established around them. There is approximately 600 acres of suitable spotted owl habitat within the Hills Creek/Little Fall Watersheds that is outside of these unmapped LSRs. There has been no recorded use of this suitable habitat by spotted owls.

3.2.2 Public Access

Physical access to BLM managed lands is provided by a network of roads ranging in density from 0.75 to 5.5 miles per section acreage of BLM ownership. These roads are limited to administrative use only, due to existing road use agreements with neighboring private landowners and the checkerboard ownership pattern of O&C Lands. The Hills Creek/Little Fall Creek analysis area is mostly behind privately controlled gates where there is no public access. There are however, 1.03 miles of road accessible to the public into this watershed, which is an accumulation of four road segments. Three of these small road segments are adjacent to a bald eagle habitat area, and one road segment has a partially exposed stream culvert as well as active garbage dumping.

3.2.3 Water Quality

Chronic turbidity was observed in the Hills Creek watershed by Weyerhaeuser Company staff in 1997 during work conducted in conjunction with watershed analysis, and by BLM staff during project field work. Cedar Creek is higher in turbidity levels than the other tributaries of Hills Creek. Grab samples were collected on several occasions at many locations around the Hills Creek drainage and indicated that the existing turbidity is part of a high natural background rate. The streams run “milky” from the gray colored smectite clay substrate, derived from volcanic ash flows and tuffs. Smectite is an extremely fine-grained clay that is easily carried in the suspended load of streams. Turbidity levels have been sampled in Little Fall Creek (Weyerhaeuser Company, 1997) and are consistently lower than those in the Hills Creek drainage. Neither stream is listed at this time as a DEQ 303(d) water quality limited stream.

No other water quality concerns (chemical pollutants, bacteria, excessive water temperature) have been noted in either drainage at this time.

3.2.4 Aquatic Habitat

Hills Creek provides habitat for winter and summer steel head, rainbow, and cutthroat trout, as well as dace and other non-salmonid fish species. Steel head and rainbow trout are limited to Hills Creek mainstem and the lower reaches of major tributaries, but cutthroat trout use all accessible streams less than 17% in gradient. There are no Threatened or Endangered natural occurring fish in Hills Creek. The closest spring chinook salmon habitat is in Fall Creek, between 3 and 5 miles downstream from the project area.

The Hills Creek channel was used as a log transport system in the early 1900's. It is likely that this practice, and removal of wood from the channel in the 1960's and 70's has affected channel conditions and fish habitat (Weyerhaeuser Company, 1997). The abundance of large wood, is low to moderate. This results in few large pools and little spawning gravel for adult fish. However, in this basin, delivery of fine sediment to stream is the greatest threat to fish and aquatic life.

The majority of the fine sediment entering streams in the Hills / Little Fall Creek watershed is from roads, particularly mid-slope roads and at crossings. Weyerhaeuser Company (1997) found that fine sediments were common in the Hills Creek Drainage, which has resulted in widespread embeddedness. Most of the barriers to fish migration in the watershed are also road related.

Little Fall Creek was used as a log transport system in the early 1900's. There was a large splash dam just upstream of what are now BLM lands. This practice resulted in a severe loss of habitat for miles below the dam. Most of the stream in this area is scoured to bedrock and there is little large wood (LWD), boulders or other habitat forming material in the channel. A cooperative enhancement project between the various landowners in the basin was completed in 1994. This consisted primarily of adding LWD and boulders to the system. Most salmon spawning is above the old splash dam, but other fish (including some salmon) spawn below it. Little Fall Creek is a very powerful stream and moves materials readily. Much of the material added in 1994 has since washed out. Additional scour is the major problem for fish and aquatic life in Little Fall Creek.

3.2.5 Soils

Bedrock geology in the western end of the watershed (BLM ownership) is dominated by soft waterlain tuffaceous deposits which have weathered into clay (smectite). This geology has produced predominantly clay loam soils, which have shallow A horizons, are easily compacted, clay-rich, and erode with concentrated surface water flows. Because of high clay contents, permeability of the soils is easily impeded and subsurface flows quickly make their appearance in the springs and seeps of roadcuts, in large persistent deep-seated landslide

areas, and along hill slopes. The clay substrate has such a slow permeability rate that during heavy rainfall, soils become saturated and the water quickly concentrates at the surface.

Abandoned native surface roads and ground based native surface logging roads have the potential to deliver fine sediment to a stream when bare soils are either compacted or in close proximity to stream channels or stream delivery points. These abandoned roads, remnants of the original road system used for the early old-growth harvests, are frequently used by recreational vehicles. Where recreational vehicles use these native surface roads, increases in erosion and fine sediment delivery does occur. Fine sediment is more readily delivered to streams when flows are concentrated in the tread of a road because of compaction and/or slow internal drainage of the silty clay soils.

The tuffaceous flows and highly weathered soils in the western portion of the watershed give way to more competent andesitic basalt toward the headwaters of Little Fall Creek to the east. Soils in the steeper eastern end of the watershed are shallow, and are not very conducive to surface erosion processes in the natural condition because of their cobbly loam texture and greater permeability. Surface erosion from roads is primarily a function of road length, width of road elements (tread, cut slope, fillslope), rate of delivery to streams, traffic rates, sediment texture, road configuration, and road surfacing (Reid and Dunne, 1984). In general, forest roads produce sand-sized and smaller sediments from cut slopes and fillslopes with a higher proportion of silt and sand sized particles coming from the tread.

3.2.6 Unaffected Resources

The following resources either are not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concern, prime or unique farm lands, Native American religious concerns, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness, minority populations, and low income populations.

4.0 ENVIRONMENTAL CONSEQUENCES

The Proposed Action and the No Action Alternative would have environmental effects. However, neither of the alternatives would have effects beyond those described in the Eugene District Record of Decision and Resource Management Plan and the Northwest Forest Plan. Impacts based upon analysis of the alternatives are described below.

4.1 DIRECT AND INDIRECT EFFECTS OF ALTERNATIVE “A” (NO ACTION)

1. Impacts to terrestrial Threatened & Endangered Species, and Survey & Manage Species.

Bald eagles and Northern spotted owls

The direct effect of this alternative is that the potential for disturbance from vehicle traffic would remain at current levels. Although current disturbance levels have not been quantified, it is assumed that disturbance from vehicle traffic currently occurs at some level on roads that are within or adjacent to spotted owl unmapped LSRs, suitable spotted owl habitat and Bald Eagle Habitat Areas (BEHAs). The indirect effect of this disturbance is that it could prevent nesting in suitable habitat or negatively affect reproductive success of these species.

2. Impacts to Public Access.

Public access would not be affected by the No Action alternative. Roads on federal land would remain the same except in emergency situations, i.e., such as fire or rescue operations. Access on private land roads would continue to be subject to the decisions of the private landowners.

3. Impacts to Road Management Activities on Water Quality.

The direct effect of this alternative is that erosion would continue at several stream adjacent roads and degrade water quality until road maintenance work is scheduled. The sedimentation would be most noticeable at the localized site, rather than at the 5th field watershed level.

The indirect effect of implementing this alternative is that roads in need of repair could continue to erode and worsen in condition over time, but negligible changes would be noticed at the 5th field watershed scale. Sediment production from roads would continue at roughly the current rate. If problem culverts fail, mass wasting would impair water quality at that time (short term). If exposed soils at washed out stream crossings are over steepened and not re-vegetated, the impact to water quality could be long term until repairs are made.

No direct or indirect impacts to water chemistry or temperature would be expected as a result of implementing this alternative.

4. Impacts of Road Management Activities on Aquatic Habitat.

Under the No Action Alternative, none of the roads would be decommissioned or fully decommissioned. Road maintenance activities would remain at the current level.

Because some roads are currently delivering sediment to streams, and / or are barriers to fish and / or other in stream migrants, aquatic life in the Hills Creek basin could be negatively impacted.

Currently illegal off-road vehicle activity has the potential for causing high fine sediment deliveries from native surface roads. If such roads are left accessible and off-road vehicle use expands, particularly on the low permeability soils in the western end of the watershed, fine sediment yields would be expected to increase.

4.2 DIRECT AND INDIRECT EFFECTS OF ALTERNATIVE “B” (PROPOSED ACTION)

1. Impacts to Threatened & Endangered Species, and Survey & Manage Species.

Bald eagles

The proposed action would decommission or fully decommission a total of 1.9 miles of roads within two Bald Eagle Habitat Areas (BEHAs). The direct effect of this alternative would be the reduction of potential disturbance to future nesting and/or roosting bald eagles within the BEHAs. The indirect effect of this alternative would be that reduced disturbance could lead to increased habitat suitability for nesting eagles.

Northern spotted owls

The direct effect of this alternative would be the reduction of potential disturbance to future nesting spotted owls. The proposed action would decommission or fully decommission a total of 3.1 miles of roads within the four owl core areas (unmapped LSRs). Only 0.2 mile of roads would remain in these owl core areas. Another 5.5 miles of roads within 1/4 mile of these owl core areas would be decommissioned or fully decommissioned under this alternative. Approximately 10.8 miles of roads would be decommissioned or fully decommissioned within 1/4 mile of suitable habitat outside of the owl core areas. Decommissioning these roads would reduce potential disturbance to spotted owls nesting within suitable habitat inside and outside of the owl core areas. The indirect effect of this alternative would be an increased suitability of habitat for nesting spotted owls due to less noise disturbance. Owls would be more likely to nest successfully where there is less disturbance.

No suitable habitat would be modified under this alternative. Road decommissioning activities would not directly cause disturbance to nesting spotted owls because these activities would not occur during the critical nesting period if there is an active nest within 1/4 mile of proposed activity areas.

2. Impacts to Public Access.

Under the Proposed Action, approximately 20.79 miles of road would be closed by decommissioning or full decommissioning, thus reducing the amount of road physically accessible to vehicles. Impacts would occur in two forms: first, roads **physically** accessible to vehicles may be closed; and second, roads **legally** accessible to the public may be closed.

Regarding physical access, most private timberland in the watershed is controlled by the Weyerhaeuser Company. The company generally opens its lands to big game hunting in the fall, although there is no legal and perpetual right of public access across their lands. Consequently, some hunters may cross through Weyerhaeuser land only to find that a particular road on public land has been closed or decommissioned. Hunters would still be able to walk along closed or decommissioned roads, but vehicle access would be eliminated. Other hunters who choose to not walk or cannot walk distances because of physical limitations may be displaced to other areas. The actual number of hunters that would be adversely affected is unknown but assumed to be low because there is no public access to roads that would be decommissioned or fully decommissioned.

Regarding legal public access, two general conditions must be met for a BLM road to provide legal public access. First, the road must begin from a county road, State highway or federal highway, and its beginning must be on public land. These roads all provide legal public access, and any BLM road stemming from them would provide legal public access onto adjacent public land. Second, if the BLM road crosses private land, BLM must have an easement from the private landowner granting the public the right to use the road.

Under the Proposed Action, 1.03 miles of roads were identified for closure or decommissioning that provide public access. About 0.75 mile of that 1.03 miles were identified in the Bald Eagle Habitat Plan for decommissioning because of the ongoing active garbage dumping and potential vehicle traffic adjacent to an active eagle nest. The remaining 0.28 mile of the total 1.03 miles of road that would be decommissioned is a natural surface road with some erosion problems, a partially exposed culvert, and

some active garbage dumping. Other roads that would be closed or decommissioned under the Proposed Action are located so that access to them is limited by gated private lands with no right of public access granted to the public. Thus, the impact of eliminating **20.79** miles of roads within this watershed would be negligible to the issue of public access.

3. Impacts of Road Management Activities on Water Quality.

Repairing roads needed for future use would contribute to an improved condition of water quality at identified sites. This improvement may not be noticeable at the 5th field watershed level, especially in the Hills Creek drainage where high background natural turbidity levels have been verified.

Removal of stream crossings and associated fill material would result in short term increases in turbidity during operations and after the first fall rains. By closing roads no longer needed, compacted road surfaces would be left in an erosion resistant condition and less likely to transport sediment to streams. This overall reduction of road generated sediment addition to streams would be a long term impact of implementing this alternative.

Proposed road maintenance or road closures would have no direct or indirect impact on water chemistry or temperatures in these watersheds.

After native surface roads are blocked to traffic, total plant cover is expected to regenerate quickly, leading to a reduction in fine sediment available to be delivered via ditch-lines to streams. Tilling (subsoiling) would restore infiltration characteristics which would hasten vegetative recovery and prevent overland flow during larger run-off events. Although tilling can restore infiltration characteristics and move these acres toward a more natural sediment regime (ACS #5), full productivity may not be restored.

4. Impacts of Road Management Activities on Aquatic Habitat.

Under Alternative B, the proposed action would decommission or fully decommission 20.76 miles, and repair up to 19.5 miles of road in the Hills Creek/Little Fall Creek watersheds. Most of the work (56%) would be done in the Hills Creek basin. Many of these roads are currently delivering sediment to streams and/or are barriers to migrating fish and/or other aquatic animals. The proposed action could have a short term negative effect on aquatic habitat, particularly during culvert removal/replacement activities. However, over the long term the proposed action would decrease sediment

delivery from roads and remove migration barriers. The net effect of this action would be improved conditions for aquatic life in the Hills Creek/Little Fall Creek watershed.

4.3 CUMULATIVE EFFECTS

This analysis incorporates the analysis of cumulative effects in the USDA Forest Service and USDI Bureau of Land Management *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl*, February 1994, (Chapter 3 & 4) and in the Eugene District Proposed RMP/EIS November, 1994 (Chapter 4). These documents analyze most cumulative effects of road decommissioning, habitat restoration, and other related management activities. None of the alternatives in this Environmental Assessment would have cumulative effects on resources beyond those effects analyzed in the above documents. The following discussion supplements those analyzed, providing site specific information and analysis particular to the alternatives considered here.

Most of the Hills Creek/Little Fall Creek Watershed is in forest industry ownership, with a small amount being BLM administered land and other private holdings. Land use in the watershed is primarily forest management in the higher elevations, rural residential and agriculture.

Private forest lands within the watershed would most likely continue to be subject to intensive forest management, including timber harvesting, burning slash piles, and replanting conifer seedlings. Also, some forest stands on private land could be converted to nonforest uses. Roads constructed to facilitate timber harvests on private lands would likely be permanent, rocky roads.

Private timber companies would probably continue with their present policies regarding public access across their lands, including allowing public use during hunting seasons.

1. Alternative A (No Action)

Under the No Action Alternative, conditions in Riparian Reserves would improve over time, but at a much slower rate than under Alternative II (Proposed Action). There would likely be a short-term downward trend in Riparian Reserve and aquatic habitat conditions because known problems would remain unchanged. The opportunity to close roads rarely used would be postponed. There would be no cumulative effects to public access under this alternative because access would remain the same.

Existing roads would remain unsuitable habitat for plants, bryophytes, lichens and fungi with no change to the amount of suitable habitat over the watershed.

2. Alternative B (Proposed Action)

There would be no change in the amount of suitable habitat for plants, bryophytes, lichens, and fungi as it would take years for suitable habitat characteristics to develop after disturbance within the project areas.

Long-term effects would be expected to reduce disturbance to wildlife and improve terrestrial and aquatic habitat. Road decommissioning and /or repair would hasten restoration on federal land throughout the watershed. Delivery of fine sediment to streams would be minimized and instream migration barriers would be removed.

Public access would not change from the present situation except for the closure of 1.03 miles of public access roads. Hunters would have 20 miles less vehicle access to BLM lands during hunting season when Weyerhaeuser Company opens their gates, there would however, still be pedestrian access on those closed roads.

The U.S.F.S. part of the watershed is part of a Late Successional Reserve. Most of the roads in the watershed found within the U.S.F.S. boundary have been decommissioned and/or closed to traffic. Road densities were reduced from 3.5 to 4 mi/section to 1.5 mi/section in the years 1993 through 1997 (Little Fall/Hills Creek Watershed Analysis, 1997). Weyerhaeuser identified road situations which could be managed to significantly reduce sediment delivery from the road network as part of their Watershed Analysis in 1997. Since that time they have been actively implementing road upgrades toward that goal. Implemented projects are varied and include replacement of old log culverts, replacing undersized culverts, installing cross drains, surfacing, fill removal, sidecast pullback. The actions proposed by BLM have comparable objectives to the work undertaken by the other major land owners. It is reasonable to expect that the combined effect would lead to a reduction of sediment delivery from the road network at the watershed scale.

4.4 Irreversible and Irretrievable Effects

There are no irreversible or irretrievable effects for threatened & endangered species, special status plants, and Survey and Manage bryophytes, lichens and fungi because no suitable habitat occurs in the roads.

There are no irreversible or irretrievable effects for water quality, fish, or soil productivity.

4.5 Other Environmental Effects - Common To All Action Alternatives

4.5.1 Unaffected Resources

The following either are not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concerns, prime or unique farm lands, floods plains, Native American religious concerns, solid or hazardous wastes, Wild and Scenic Rivers, Wilderness, Minority populations, and low-income populations.

4.5.2 Wetlands

Since no ground disturbing activities would occur in meadows and wetlands, the hydrology in these sensitive areas would be maintained in the current condition, and intent of ACS Objective 7 would be met.

4.5.3 Recreation

The Action Alternative would not have any adverse effects on the dispersed recreational opportunities existing in the project area. Proposed road closures and decommissioning would not affect future public vehicle access opportunities into the Hills Creek/Little Fall Creek Watershed because there is no public access.

4.5.4 Cultural Resources

No cultural sites have been identified. Therefore, there would be no direct, indirect or cumulative effects to cultural resources.

4.5.5 American Indian Rights

No impacts on American Indian social, economic, or subsistence rights are anticipated. No impacts are anticipated on the American Indian Religious Freedom Act. Management action information was sent to the Confederated Tribes of the Grand Ronde, and Confederated Tribes of the Siletz.

5.0 CONSULTATION AND COORDINATION

5.1 EA Review

This Environmental Analysis is being mailed out to the following members of the public and organizations:

| | |
|-----------------------------------------------|---------------------------------------|
| John Bianco | Roseburg Forest Products |
| Oregon DEQ | Peter Saraceno |
| Jim Goodpasture | Harold Schroeder |
| Pam Hewitt | Sierra Club - Many Rivers Group |
| Charles & Reida Kimmel | Swanson Superior Forest Products Inc. |
| Land County Land Management | Craig Tupper |
| Carol Logan, Kalapooya Sacred Circle Alliance | Governor's Forest Planning Team |
| Jan Wroncy | |
| Oregon Dept. of Fish & Wildlife | Ann Mathews |
| Oregon Dept. of Forestry | American Lands Alliance |
| Oregon Natural Resources Council | Kris and John Ward |
| The Pacific Rivers Council | Sondra Zemansky |
| John Poynter | Robert P. Davison |
| Leroy Pruitt | Tom Stave, U of O Library |
| Terry Sieberman, Giustina Resources | John Muir Project |
| James Johnston | |

A summary was sent to those receiving the "Eugene BLM Eye to the Future" in July 2000 (approximately 250 mailings; a complete listing is available at the Eugene District Office).

5.2 Consultation

The activities proposed as part of this project do not require formal consultation as they are covered in the programmatic BO issued for Willamette spring chinook. The design criteria indicating appropriate work timing and procedures will be followed during implementation of this project.

In addition to ESA requirements, the Magnuson-Stevens Act (1996) requires that the impact on essential fish habitat (EFH) be assessed for all new projects. The activities proposed as part of the Hills Creek TMR EA will have minimal impact on Essential Fish Habitat for spring chinook salmon (NLAA). Hills Creek is not considered habitat for spring chinook due to its size and gradient. Spawning surveys and fish distribution surveys have not identified use of Hills Creek by spring chinook. At this time consultation on EFH with the National Marine Fisheries Service

(NMFS) is not required for actions determined to be NLAA. If this direction changes, appropriate consultation on EFH for spring chinook will be conducted and the resulting conservation recommendations will be applied to the project.

Consultation with US Fish and Wildlife Service (FWS) and US National Marine and Fisheries Service (NMFS) occurred through programmatic biological assessments and opinions.

A Biological Opinion from NMFS covering Programmatic Actions in Eugene District BLM was issued on June 28, 1999. This was in response to the Biological Assessment submitted to NMFS on May 25, 1999.

6.0 LIST OF PREPARERS

The Proposed Action and alternatives were developed and analyzed by the following interdisciplinary team of BLM specialists:

| NAME | TITLE | RESOURCE/DISCIPLINE |
|-------------------|---------------------|----------------------|
| Rudy Wiedenbeck | Soil Scientist | Soils |
| Lynn Larson | Silviculturist | Silviculture |
| Kris Ward | Hydrologist | Water Resources |
| Mike Sabin | Engineer | Roads/Transportation |
| Cheshire Mayrsohn | Botanist | Botany |
| Paula Larson | Wildlife Biologist | Wildlife Habitat |
| Nikki Swanson | Fisheries Biologist | Fisheries |
| Don Wilbur | Natural Res. Spec. | Team Lead / Writer |

7.0 REFERENCES

USDA Forest Service and USDI Bureau of Land Management. February 1994. Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl. Portland, Oregon.

USDA Forest Service and USDI Bureau of Land Management. April 1994. Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl.

USDI Bureau of Land Management. November 1994. Eugene District Resource Management Plan/Environmental Impact Statement. Eugene, Oregon: Eugene District Office.

USDI Bureau of Land Management. June 1995. Eugene District Record of Decision and Resource Management Plan. Eugene, Oregon: Eugene District Office.

Weyerhaeuser. February 1997. Little Fall Creek / Hills Creek Watershed Analysis.

USDI Bureau of Land Management. February 1997 / February 2000 (supplement), Little Fall Creek / Hills Creek Watershed Analysis. Eugene, Oregon: Eugene District Office.

**HILLS CREEK AND LITTLE FALL CREEK
TRANSPORTATION MANAGEMENT RECOMMENDATIONS**
(Within Two 5TH Field Watersheds)

Introduction

Transportation Management Recommendations (TMR) were developed using information gathered in the office to determine the future need for roads and through a field review of individual road segments to map locations of stream crossings, identify ditch line relief culverts on each segment, and to map active or potential problem areas. The information was analyzed by an Interdisciplinary Team (IDT) to determine the maintenance level of roads needed for future management actions. This effort also included recommendations for restorative upgrades to roads, or segments of roads to meet management objectives. These recommendations attain ACS objectives #1 thru 9.

Objectives:

Develop and maintain a Transportation Plan that meets ACS objectives (Eugene RMP, p.98)

Control and prevent road-related run-off and sediment production. (NWFP-ROD, p. B-31)

Process Used:

The transportation management plan process involved the following:

- field reviewing areas with a high concentration of BLM managed areas.
- using information from the watershed analysis.
- reviewing documents to determine roads that have right-of-way agreements.
- examining the database to determine future management needs for roads.

All roads were reviewed in the field and the following information was considered to determine the road maintenance level.

- whether the road was part of a right-of-way agreement
- C future timber harvest access needs
- C suitability of the road for future use

Since this TMP effort included roads located in the Hills Creek and Little Fall Creek Watershed Analysis Area, the tables describing the recommendations are arranged by Section where the roads are located.

There are three road maintenance levels defined below:

Road Maintenance Level

| Maintenance Level | Description |
|--------------------------|-----------------------------------------------------------------------------------------------------------|
| 1 | road would be decommissioned or fully decommissioned |
| 2 | road would be maintained for administration use |
| 3 | road would be maintained at a level to allow for passenger vehicles. This would include rocking the road. |

The team developed the following criteria to determine whether to recommend decommissioning or full decommissioning a road.

Criteria for Decommissioning

1. Minimize erosion on seldom used roads by BLM.
2. Culverts adding sediment or having the potential to fail and add sediment.
3. Decommission roads that are not needed for management actions within the next 10 years, but use in the future is expected.
4. Reduce access for illegal trash dumping.
5. Public safety concerns due to poor condition of roads.
6. Reduce disturbance to wildlife.

Criteria for Full Decommissioning

1. Concerns regarding slope stability, or direct sedimentation to streams.
2. Opportunity to reclaim soil productivity especially on compacted native road surfaces.
3. No future need or low use.
4. Heavily roaded sections.
5. Improving habitat and reducing habitat fragmentation.

The terms “Decommissioning” and “Full Decommissioning” are described below:

Decommission - Roads that would be closed, but could be used again in the future. Prior to closure, the road would be prepared to minimize future maintenance needs; the road would be left in an erosion resistant condition by establishing drainage, removing fills in stream channels and potentially unstable fill areas along the road

prism. Exposed soils would be treated to reduce sedimentation where possible. The road would be blocked to vehicle use.

Full Decommission - Roads would be permanently closed with no future use anticipated. Cross drains, fills in stream channels, and potentially unstable fills would be removed to restore hydrologic flow. Subsoiling and planting may be prescribed to establish vegetation. The road would be blocked to vehicle use. The road would be closed with a device similar to an earthen barrier or equivalent. The road would not require future maintenance and would be removed from all road inventories.

Culverts would be removed under both the decommission and full decommission options and disposed of properly.

A. Types of Road Restoration Action Needed

In some cases, recommendations for certain roads are driven by a combination of reasons. **Table 1** lists all roads identified on BLM land in the watershed by legal description. The table briefly describes the proposed restoration work and the priority for that work. The types of proposed road restoration projects include: 1) improving existing permanent roads where drainage features are either lacking or need replacement, 2) surfacing existing permanent roads with aggregate to reduce sedimentation to streams, 3) changing new permanent access from current riparian locations to upland locations, and 4) decommissioning roads not needed for management purposes in the foreseeable future.

The following describes what action would occur and which ACS Objectives would be met by implementing the work. The action that is applicable to each road segment is listed on **Table 1** and form the basis for determining road project priorities.

1. Repair/replace stream crossing culverts that present risk of mass wasting or sediment delivery to streams. Design these culverts to accommodate a 100- year flood event (*Action meets ACS Objectives 4, 5*).
2. Remove and replace (if necessary) culverts that are barriers to fish and aquatic life. The highest priority would be barriers to anadromous fish. Where culverts are to be removed, natural stream configurations are to be reestablished and the road prism is to be left in an erosion resistant condition. For culverts to be replaced, design to accommodate a 100-year flood event and fish migration (*Action meets ACS Objectives 1, 2, 9*).

3. Install additional cross drain culverts where needed and/or replace damaged cross drain culverts to divert sediment from delivering to streams (*Action meets ACS Objectives 4, 5, 6*).
4. Close roads that are currently maintenance level 1 with a low management need in the future. These roads are either (a) currently eroded and have potential for delivering sediment directly or via a ditch line to streams, or (b) are in the Riparian Reserves and could be rerouted to upland locations (*Action meets All ACS Objectives*).
5. Close roads that are currently maintenance level 1 with a low management need in the future. These are roads that do not have stream crossings or have little potential to deliver sediment to streams. They are generally located on or near ridge tops (*Action meets All ACS Objectives*).
6. Resurface permanent roads with crushed rock to reduce sedimentation (*Action meets ACS Objectives 4, 5*).
7. Close roads that currently cause disturbance to sensitive wildlife areas. Roads with low management needs in the future that are within or within ¼ mile of Bald Eagle Habitat Areas or Unmapped Late-Successional Reserves would be highest priority (*Action meets ACS Objectives 1, 9*).
8. Repair ditch system of road (*Action meets ACS Objectives 4, 6*).

B. Project Priority

The rationale used in developing priorities for conducting the road project is described below. The highest priority for work is “1” and the lowest is “6” (See **Table 1**).

These Roads Would Remain Part of Permanent Road System:

Symbol “-” means that no on-the-ground work is needed; therefore, no priority is assigned. These roads generally are either (1) part of the permanent road system and are in good condition, or (2) are privately controlled.

1. Conditions on these roads are such that there is existing water quality impairment and/or known blockage to anadromous fish migration. Corrective measures are needed during FY 2000 and without action, resource damage will continue. (Actions 1, 2, 3, 4, 6, 7, 8 or combinations thereof.)

2. Proposed road project would consist of routine road maintenance and/or remove barriers to fish migration. (Actions 1, 2, 3, 4, 7, 8 or combinations thereof.)

These Roads Would Be Decommissioned:

3. Proposed road project would close roads to improve riparian and wildlife habitat, and water quality. Roads in this category are within or adjacent to (¼ mile) bald eagle or northern spotted owl habitat areas, and can either deliver sediment to streams or are located in the Riparian Reserves and could be relocated to upland locations. (Actions 1, 4, 7 or combinations thereof.)
4. Proposed road project would close roads to improve wildlife habitat. Roads in this category **are** within or adjacent to (¼ mile) Bald Eagle Habitat Areas or Unmapped Late-Successional Reserves, and have low potential to deliver sediment to streams due to an upland location. (Actions 5, 7 combined.)
5. Proposed road project would close roads located in upland locations. Roads in this category **are not** within or adjacent to (¼ mile) Bald Eagle Habitat Areas or Unmapped Late-Successional Reserves, and have low potential to deliver sediment to streams because of an upland location. (Action 5.)
6. These roads are currently in an erosion resistant condition and no longer needed for management purposes. Road records can be updated to indicate these roads are decommissioned.

**Table 1 - Little Fall Creek / Hills Creek TMR
and Recommended Actions**

| Recommended Implementation Method | Road Number | Road Action Needed | <u>Project Priority</u> | Maint. Level | Public Access (Yes/No) | Road Length (Miles) | Comments and Rationale |
|------------------------------------------|---------------------------------|---------------------------|--------------------------------|---------------------|-------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T. 18 S., R. 1 W., Sec. 7 | | | | | | | |
| | 18-1-7 | 4(a) | 3 | 1 | N | est. 0.75 | Decom: Block, remove culvert. Good location for a road and may be needed in the future. Mostly ridge top, 1 log culvert w/pond. One stream w/o culvert. Used by ATVs, horses. Dirt surface continues onto private. |
| | 18-1-7.1 | 5 | 6 | 1 | N | 300 ft. | Naturally Decom.; overgrown and blocked now. Remove from records now. |
| Do under TS | 18-1-7.3 | 5 | 5 | 1 | N | 0.2 | Decom.: Pull pipes and block road. Connects to Sec. 17 where harvest is proposed. No stream crossings. |
| | 18-1-7.4 | 4 | 3 | 1 | N | 0.1 | Full Decom: Till, water bar and block. Dirt surface, no stream crossings, currently gullied so this road could deliver sediment to the ditch of Road No. 18-1-12 |
| Do under TS | 18-2-12 | 3, 8 | 2 | 3 | N | 1.3 | Add cross drains, brush, do maintenance. Keep as part of permanent road system. |
| Private | 18-1-21 Seg. L | | - | 1 | N | 0.45 | Exclusively on private lands. |
| No work needed | 18-1-21 Seg. K Weyco.100 | | - | 3 | N | 0.1 | BLM controls use, Weyco improved. Keep as part of permanent road system. |
| Private control | 18-1-21 Seg. J Weyco. 100 | | - | N/A | N | 0.13 | Weyerhaeuser controls |
| Road Maintenance ASAP | 18-1-21 Seg. I Weyco. 100 | 1, 2 | 1 | 3 | N | 0.1 | Culvert #1 possible fish barrier; fish presence/habitat potential needs field check. Culvert #2 is undersized and not properly draining water (water flowing under road fill). Install culvert #3 at identified stream as flagged. Keep as part of permanent road system. |
| | Unnumbered 'A' | 5 | 5 | 1 | N | 0.1 | Full Decom: block off portion of road on BLM property, and create lead off ditch at junction with Road No. 18-2-12. Active erosion but no delivery to stream. Dirt surface but don't till due to shallow soils. |

| | | | | | | | |
|-----------------------------------------------------------|---------------------------|------------|---|---|---|------|-----------------------------------------------------------------------------------------------------------------------------------|
| Remove from records now | Unnumbered 'B' | 5 | 6 | 1 | N | 0.1 | Naturally Decom. Already blocked and grown over. |
| T. 18 S., R. 1 W., Sec. 9 | | | | | | | |
| No work needed | 18-1-9.1 | | - | 3 | N | 0.2 | Will be extended onto ridge top to be haul route for Cedar Flats TS. No maintenance needs. Keep as part of permanent road system. |
| No work needed | 18-1-15.1 | | - | 3 | N | 0.4 | Keep as part of permanent road system. |
| Do under Cedar Flats TS | 18-1-15.1c | 4b | 3 | 1 | N | 0.5 | Full Decom.; New route proposed to ridge top off Road No. 18-1-9.1. Currently this segment is gravel and has ATV use. |
| Road Maintenance ASAP | 18-1-21E (SW¼ of section) | 2, 4, 7 | 1 | 1 | N | 0.2 | Full Decom.; Remove stream crossing, till road bed, block road, install signs. Active ATV use. |
| Do under Cedar Flats TS | 'Mud Road' | 4(a) | 3 | 1 | N | 0.55 | Full Decom.; Dirt surface, water pools in roadbed. Till road bed, block, install signs. Active ATV use. |
| T. 18 S., R. 1 W. Sec. 11 Connectivity Section | | | | | | | |
| | 18-1-2.1 | 4(a), 7 | 3 | 1 | N | 0.3 | Decom. Water bar lower segment due to surface erosion. Be sure to block to ATV. |
| Do under TS | 18-1-11 | 4(a), 7 | 3 | 1 | N | 0.25 | Full Decom after used in TS. Some surface erosion. |
| Do under TS | 18-1-11.1 | 5, 7 | 4 | 2 | N | 1.12 | Decom after TS. Reroute proposed. One stream crossing. |
| Do under TS | 18-1-11.2 | 5, 7 | 4 | 2 | N | 0.3 | Decom after TS, Block |
| Do under TS | 18-1-14 | 2, 4(b), 7 | 2 | 1 | N | 1.4 | Full Decom.; Many stream crossings - part of Connectivity Plan, anadromous fish nearby. |
| Remove from records | Road A | 4(a), 7 | 6 | 1 | N | 0.3 | Natural Decom. Not accessible, has log culverts. |
| T. 18 S., R. 1 W., Sec. 13 | | | | | | | |
| Do under TS | 18-1-13 | 4(b) | 3 | 1 | N | 0.8 | Full Decom. after TS. Grown over with two log culverts |

| | | | | | | | |
|----------------|------------|---------|---|---|---|------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| No work needed | 18-1-13.1 | | - | 1 | N | 1.6 | Will be needed for TS within 10 years. Nine stream crossings, rock surface, Scotch broom moving into road. Keep as part of permanent road system. |
| | 18-1-13.2 | 5, 7 | 4 | 1 | N | 0.12 | Full Decom.; gravel surface, no stream crossings, Scotch broom. Block road, but don't subsoil due to Scotch broom. |
| | 18-1-13.3 | 5 | 5 | 1 | N | 0.1 | Naturally Decom.; no stream crossings, gravel surface, overgrown with Scotch broom. Block, but don't subsoil due to Scotch broom. |
| Private Rights | 18-1-14.2 | 4(a), 7 | 3 | 2 | N | 0.75 | Full Decom. and make erosion resistant. There is a small slide below stream crossing #3 (see book). 3 stream crossings total. Weyco has rights. |
| No work needed | 18-1-22.1D | | - | 1 | N | 0.94 | Ridge top road needed for TS. 1 log culvert and no current erosion. Keep as part of permanent road system. |

T. 18 S., R. 1 W., Sec. 15

| | | | | | | | |
|-------------------------|-----------|-----------|---|-----|---|------|-------------------------------------------------------------------------------------------------------------------|
| No work needed | 18-1-15.1 | | - | 3 | N | 0.6 | Good condition, will remain part of permanent road system. |
| Private control | 18-1-15.2 | N/A | - | N/A | N | 0.75 | Weyerhaeuser controls |
| No work needed | 18-1-15.3 | | - | 2 | N | 0.75 | Weyco shares control; gravel surface, no stream crossings, good condition. Keep as part of permanent road system. |
| No work needed | 18-1-15.4 | | - | 2 | N | 0.1 | Future use identified. Keep as part of permanent road system. |
| No work needed | 18-1-15.5 | | - | 2 | N | 0.1 | Future use identified, no stream crossings, lots of Scotch broom. Keep as part of permanent road system. |
| Remove from records now | 18-1-15.7 | 4a, 4b, 7 | 6 | 1 | N | 0.75 | Natural Decom.; stream crossing blown out. |
| No work needed | 18-1-15D | - | - | 2 | N | 0.27 | Road is on private land, but has a BLM Easement (E-134). |

T. 18 S., R. 1 W., Sec. 17

Connectivity Section

| | | | | | | | |
|-------------|---------------|-------|---|---|---|------|-----------------------------------------------------------------------------------------------------------------------------------|
| | 18-1-7.3 | 4a, 7 | 3 | 1 | N | 0.70 | Decom: pull pipes and block. No current erosion problems, two stream crossings, close road in conjunction with Connectivity plan. |
| | 18-1-17 | 5, 7 | 4 | 1 | N | 0.34 | Decom., no stream crossings, rock surface |
| Do under TS | 18-1-21 Seg.C | 4a, 7 | 3 | 1 | N | 1.2 | Full Decom with 3 stream crossings. |

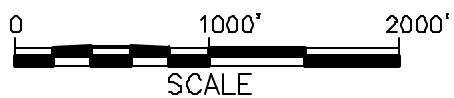
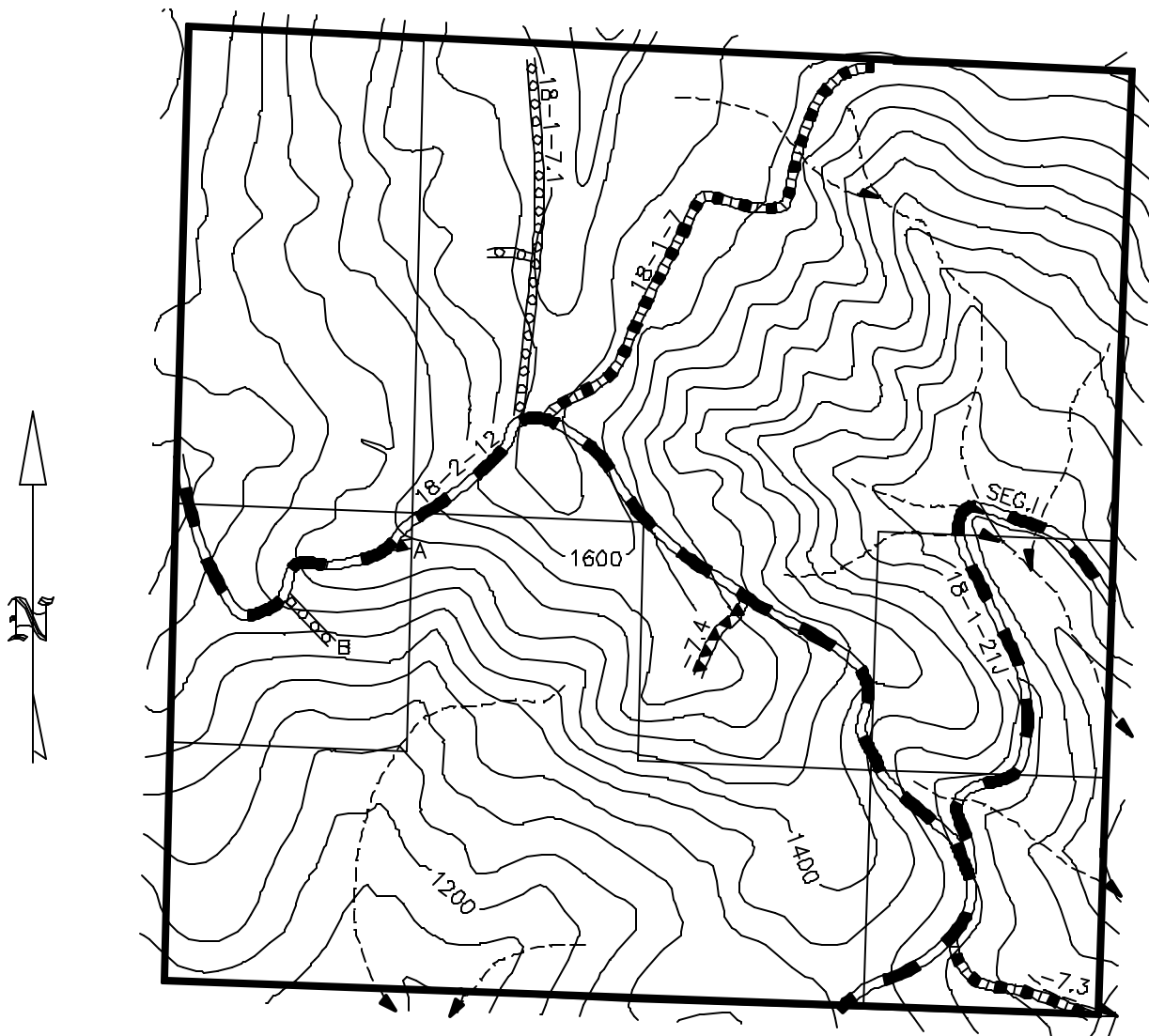
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|-----------------------------------------------------------|-------------------------------------|---------|------|---|---|------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Do under TS | 18-1-21 Seg. G Segs. F+D Pvt. | 5, 7 | 4 | 1 | N | 0.34 | Full Decom.; portions of the road are on private land. We need concurrence from Weyco to decommission. |
| T. 18 S., R. 1 W., Sec. 21 | | | | | | | |
| Road Maintenance ASAP | 18-1-21 Segment A1 | 4, 8 | 1 | 1 | N | 0.50 | Decom. (Need for potential timber sale) Water bar, install lead-off ditches, and shape the roadbed to be erosion resistant. Block to ATVs. |
| Road Maintenance ASAP | 18-1-21 Segment A2 | 4, 8 | 1 | 1 | N | 0.20 | Full Decom. |
| | 18-1-21.1 | 2 | 1 | 1 | Y | 0.28 | Full Decom. and remove stream crossing and block. |
| Remove from records now | 18-1-21.2 | 5 | 6 | 1 | N | 0.33 | Naturally Decom. Overgrown with blackberries. |
| Remove from records now | 18-1-21.3 | 4, 8 | 1 ?? | 1 | N | 0.33 | Decom. and Winterize (shape and waterbar). |
| T. 18 S., R. 1 W., Sec. 23 | | | | | | | |
| | 18-1-22.1B | 1, 3, 8 | 2 | 3 | N | 1.0 | Shared rights with Weyco. Cross drains need maintenance. Keep as part of permanent road system. Blocked log culvert. |
| No work needed | 18-1-23 | | - | 3 | N | 1.1 | Two stream crossings recently replaced. Keep as part of permanent road system. |
| No work needed | 18-1-23A | | - | 3 | N | 0.3 | Keep as part of permanent road system. |
| No work needed | 18-1-23.1 | | - | 3 | N | 1.1 | Keep as part of permanent road system. |
| Do under TS | 18-1-23.3 | 5 | 5 | 1 | N | 1.2 | Decom: Block |
| T. 18 S., R. 1 W., Sec. 25 | | | | | | | |
| | 18-1E-31.6 Segment C | 5, 7 | 4 | 1 | N | 0.1 | Decom. Only access to BLM 40 acre tract. Garbage, including a vehicle. Block. |
| T. 18S., R. 1 E., Sec. 19 Connectivity Section | | | | | | | |
| Under TS, or Road Maintenance | 18-1E-19.1 | 6, 8 | 2 | 2 | N | 0.68 | Needs brushing, ditch maintenance, add cross drains, and grading. Fish survey should be conducted. Keep as part of permanent road system. |
| Under timber sale, and/or road maintenance | 18-1E-19.2 | 2 | 2 | 1 | N | 1.0 | Unplug one stream crossing ASAP. Fish survey was not done on these streams. Decommission after future timber sale. |
| | 18-1E-19.5 | 5 | 5 | 1 | N | 0.23 | Full Decom. No subsoiling as it is surfaced with deep pit run. Block. |

| | | | | | | | |
|------------------------------------------------------------|--------------------------------------|---------------|---|---|---|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Road Maintenance ASAP | 18-1-25 | 1, 2, 3, 6, 8 | 1 | 2 | N | 1.70 | Private Rights on this road. Immediate need to install additional cross drain culverts, upgrade failing culverts, replace failing log culvert. Water running down road. Fish survey needed at stream crossing #2. Keep as part of permanent road system. |
| Private Rights | 18-1E-19.6 | | - | 2 | N | 0.13 | Shared rights. No stream crossings or relief culverts. |
| T. 18 S., R. 1 E., Sec. 21 | | | | | | | |
| | 18-1E-20.2 Segment C Segment D | 2, 4, 7 | 3 | 1 | N | 0.51 (seg. C) 0.66 (seg. D) | Full Decom. Within the Riparian Reserve, potential sediment delivery to streams, Scotch broom. Subsoil and plant conifers and follow-up maintenance on Scotch broom. Coordinate with Weyco regarding decommissioning Segment A of this road. |
| No work needed | 18-1E-20.2 Segment B | 7 | - | 3 | N | 0.19 | Keep as part of permanent road system. Would provide access to Weyco ownership in NW¼ of the section. |
| No work needed | 18-1E-21.1 Segment A | 7 | - | 3 | N | 0.79 | Keep as part of permanent road system. Would provide access to Weyco ownership in NW¼ of the section. Ridge top access would be rerouted to the south on existing road controlled by Weyco. |
| | 18-1E-21.1 Segment B | 5, 7 | 4 | 1 | N | 0.35 | Decom. Block. |
| | 18-1E-21.2 | 5, 7 | 4 | 1 | N | 0.55 | Full Decom: Remove pipes, till and block. Currently water bar blocked to traffic. |
| | 18-1E-21.3 | 5, 7 | 4 | 1 | N | 0.1 | Decom: Block on Segment B of Road No. 18-1E-21.1 |
| Remove from records now. | 18-1E-21.4 | 5, 7 | 6 | 1 | N | 0.1 | Full Decom. Naturally grown over. |
| | 18-1E-21.5 | 5, 7 | 4 | 1 | N | 0.17 | Full Decom |
| Private Control | 18-1-25.1 | | - | | N | | Private |
| T. 18 S., R. 1 E., Sec. 23 Connectivity Section | | | | | | | |
| Do under TS | 18-1E-26 | 4, 7 | 3 | 1 | N | 1.14 | Will upgrade for TS, then decom afterwards. |
| Do under progeny site thinning | 18-1E-26.1 | 5, 7 | 4 | 1 | N | 0.51 | Decom: water bar if necessary and block. Garbage dumping. |
| Do under TS | 18-1E-14 | 4,7 | 3 | 1 | N | 0.43 | Decom. after timber sale |
| T. 18 S., R. 1 E., Sec. 29 | | | | | | | |

| | | | | | | | |
|----------------------------------------------|----------------------------------------------------------------------|------|---|---|---|------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Private Rights No work needed | 18-1E-20 | | - | 3 | N | 0.15 | Keep as part of permanent road system. |
| No work needed | 18-1E-20.1 Segment B | | - | 1 | N | 1.15 | Keep as part of permanent road system. |
| No work needed | 18-1E-29 | | - | 2 | N | 0.8 | Keep as part of permanent road system. |
| No work needed | 18-1E-29.1 segment A | | - | 1 | N | 0.6 | Keep as part of permanent road system. |
| Do under Jump and Fall TS | 18-1E-29.1 segment B | 5 | 5 | 1 | N | 0.45 | Full Decom. Located west of proposed Jump and Fall TS. Block, no till due to Scotch broom. |
| | 18-1E-29.2 | 4 | 3 | 1 | N | 0.25 | Decom. Pit run surface, two stream crossings, Scotch broom problem. Block but no till. |
| | 18-1E-29.3 | 5 | 5 | 1 | N | 0.15 | Decom. No stream crossings, overgrown with Scotch broom. Block but no till. |
| | 18-1E-29.4 | 5 | 5 | 1 | N | 0.40 | Decom. One ditch line relief culvert. Beginning to be overgrown with scotch broom and blackberry. Block. |
| | 18-1E-29.5 | 5 | 5 | 1 | N | 0.20 | Decom. Overgrown with scotch broom. Block. |
| | 18-1E-29.6 | 5 | 5 | 1 | N | 0.10 | Decom. Located adjacent to a stream. No relief culverts or stream crossings. Block. |
| | Unnumbered Spur A | 5 | 5 | 1 | N | 0.1 | Decom: Block |
| | Unnumbered Spur B | 5 | 5 | 1 | N | 0.1 | Decom: Block. |
| T. 18 S., R. 1 E., Sec. 31 | | | | | | | |
| | 18-1E-31 (two forks - in Little Fall Cr. Watershed only) | 5, 7 | 4 | 1 | Y | 0.25 | Full Decom. Till and Block. Consistent with recommendations in BEHA management plan. Consider timing of BEHA treatments before decommissioning. |
| Do under progeny site thinning project | 18-1E-31.5 | 5, 7 | 4 | 1 | Y | 0.3 | Decom and Block after thinning progeny site. Only access to progeny site. Garbage dumping. |
| | 18-1E-31.6 Segment A | 5, 7 | 4 | 1 | Y | 0.2 | Decom. Only access to BLM 40 acres in Sec. 25. Garbage, including a vehicle. Block. |

MAPS

(INCLUDES ALL PUBLIC LAND IN THE
LITTLE FALL CREEK / HILLS CREEK WATERSHED)








PROPOSED TRANSPORTATION PLAN

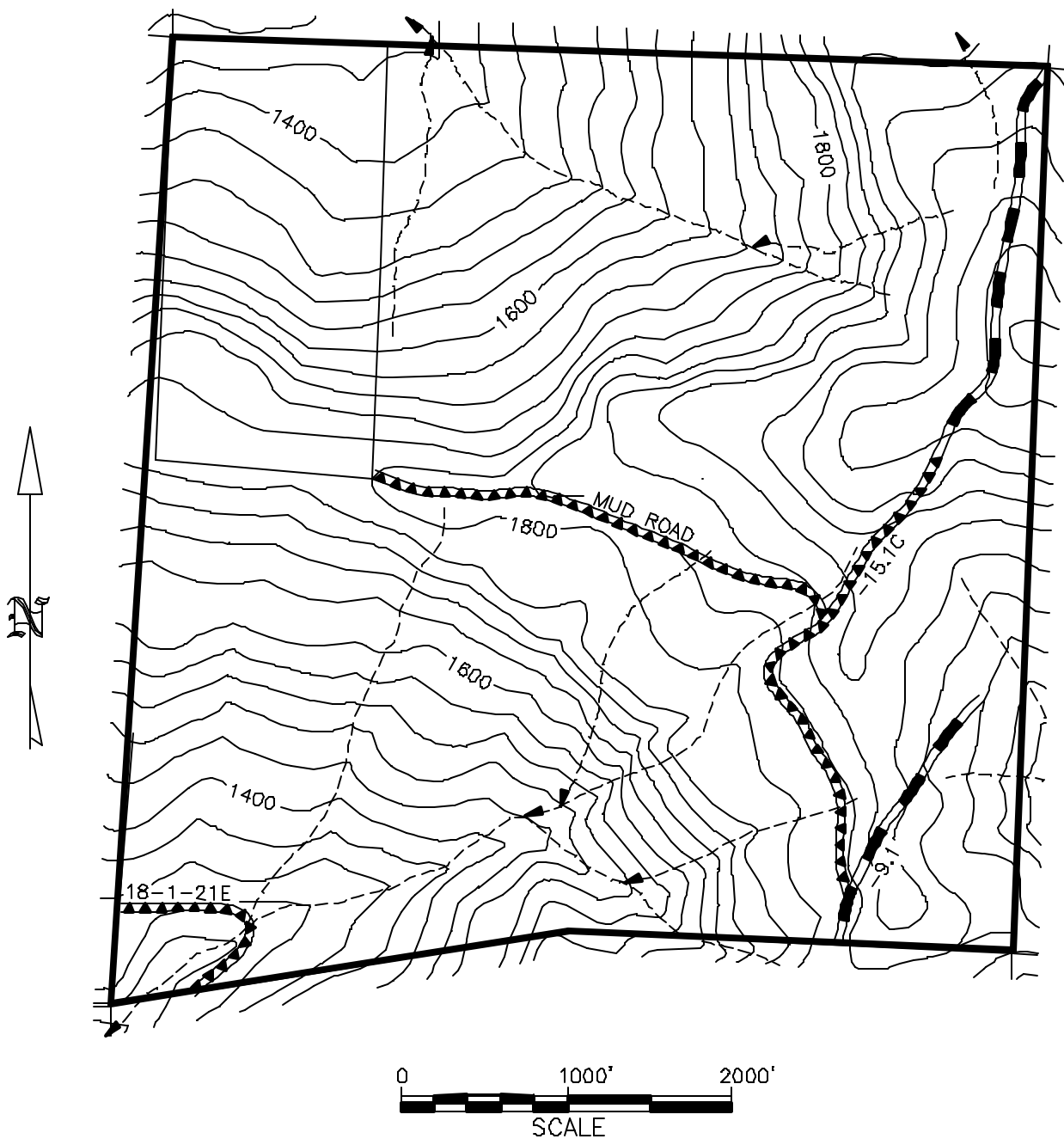
McKENZIE RESOURCE AREA

T. 18S R. 1W S. 7

WILL. MER. LANE CO., OREGON

LEGEND

-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  STREAMS








PROPOSED TRANSPORTATION PLAN

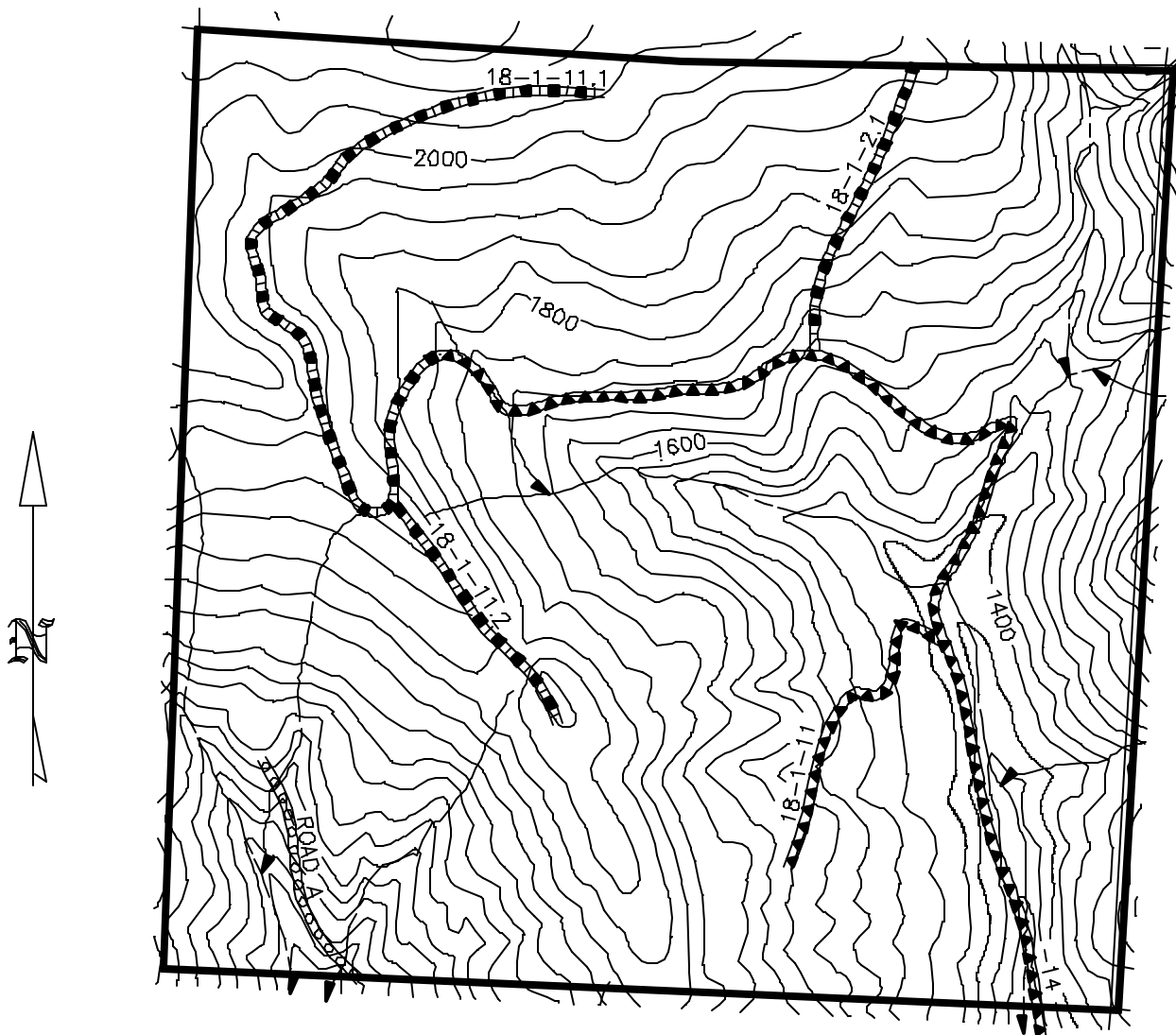
McKENZIE RESOURCE AREA

T. 18S R. 1 S. 9

WILL. MER. LANE CO., OREGON

LEGEND

-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  STREAMS



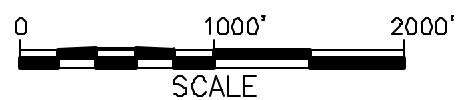
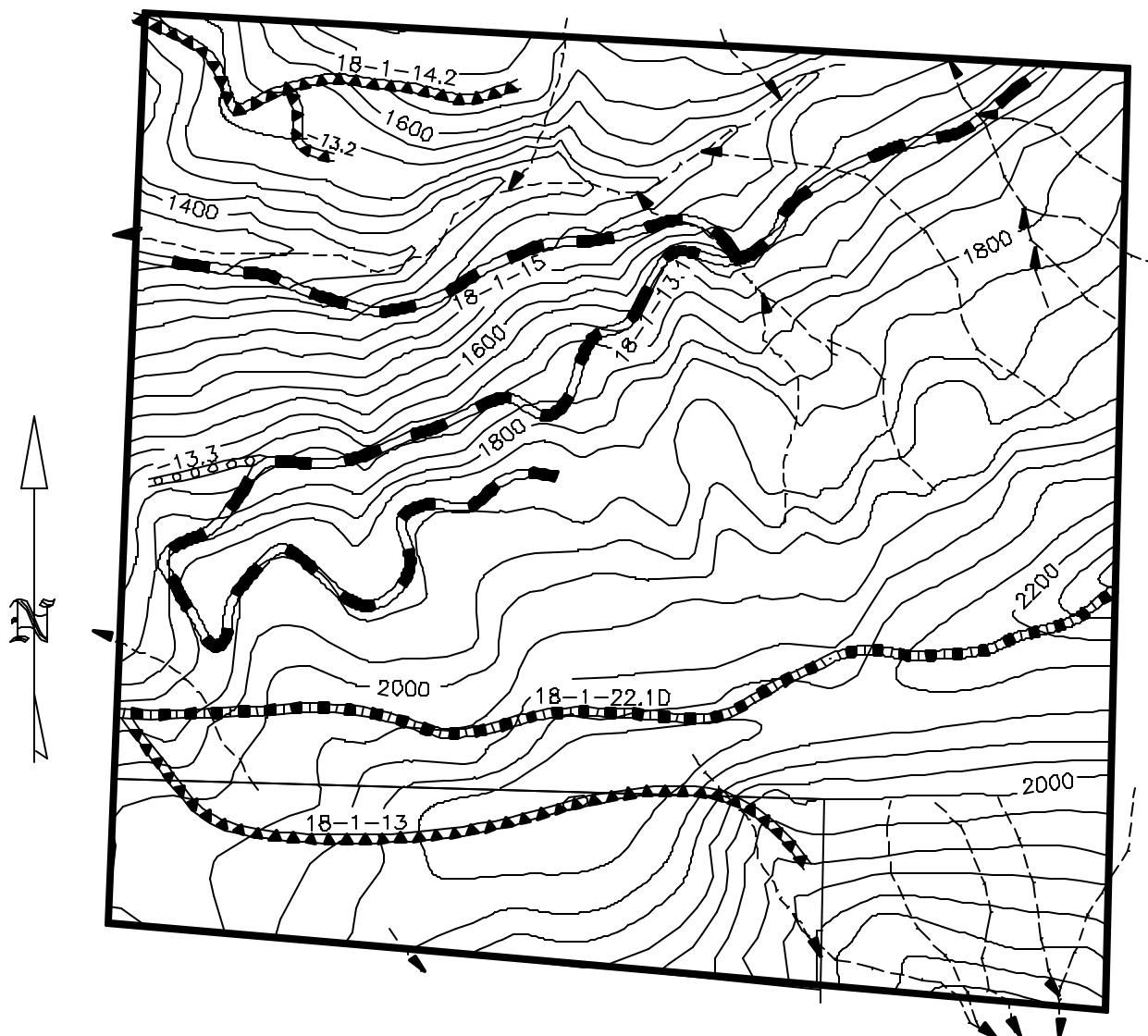
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SCALE

PROPOSED TRANSPORTATION PLAN

McKENZIE RESOURCE AREA
T. 18S R. 1W S. 11
WILL. MER. LANE CO., OREGON

LEGEND






- ROADS TO BE RETAINED
- - - DECOMMISSION ROADS
- ▲▲▲ FULL DECOMMISSION ROADS
- ○ ○ NATURAL DECOMMISSION ROADS
- ~ STREAMS

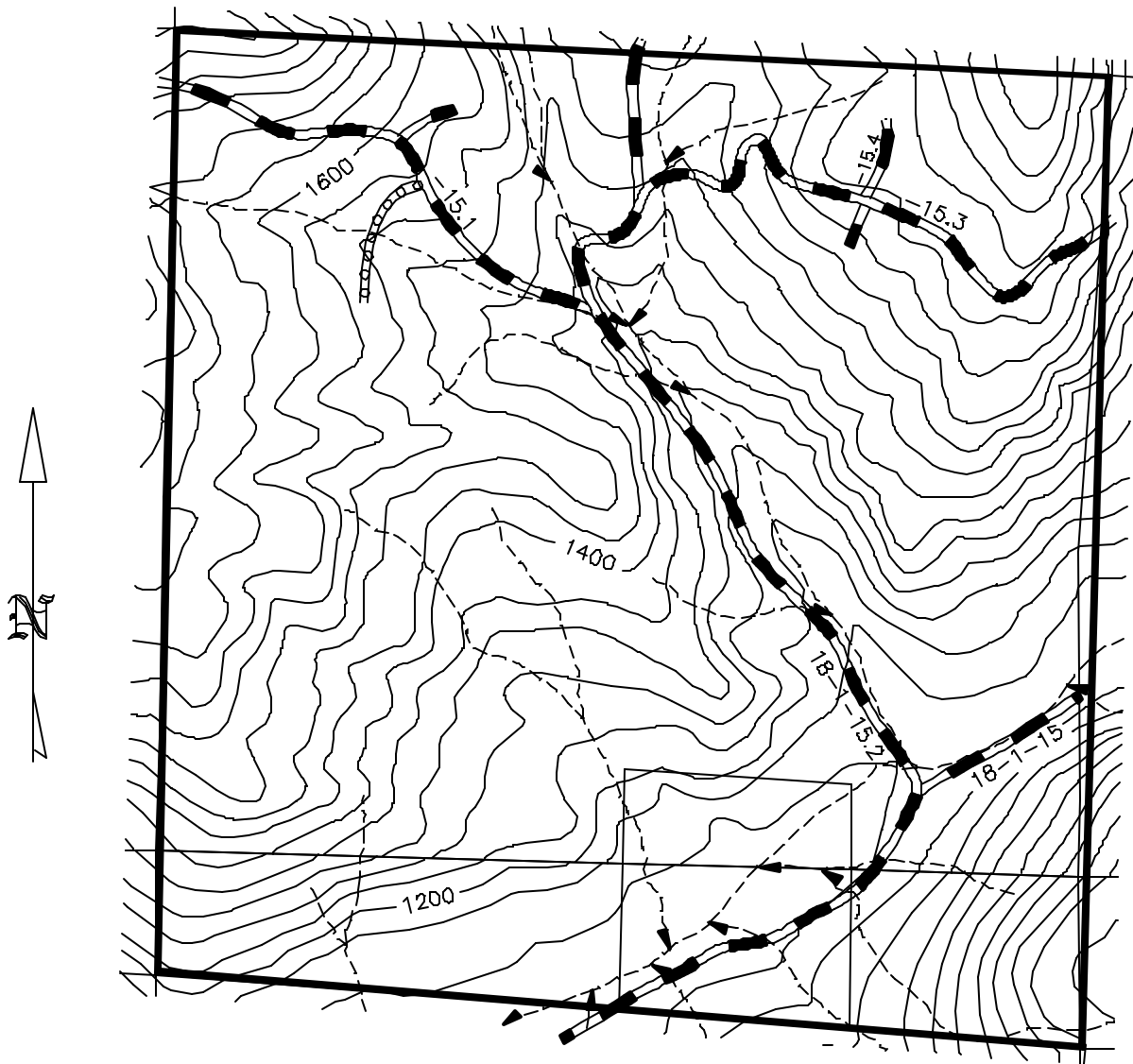


PROPOSED TRANSPORTATION PLAN

McKENZIE RESOURCE AREA
 T. 18S R. 1W S. 13
 WILL. MER. LANE CO., OREGON

LEGEND

-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATUAL DECOMMISSION ROADS
-  STREAMS








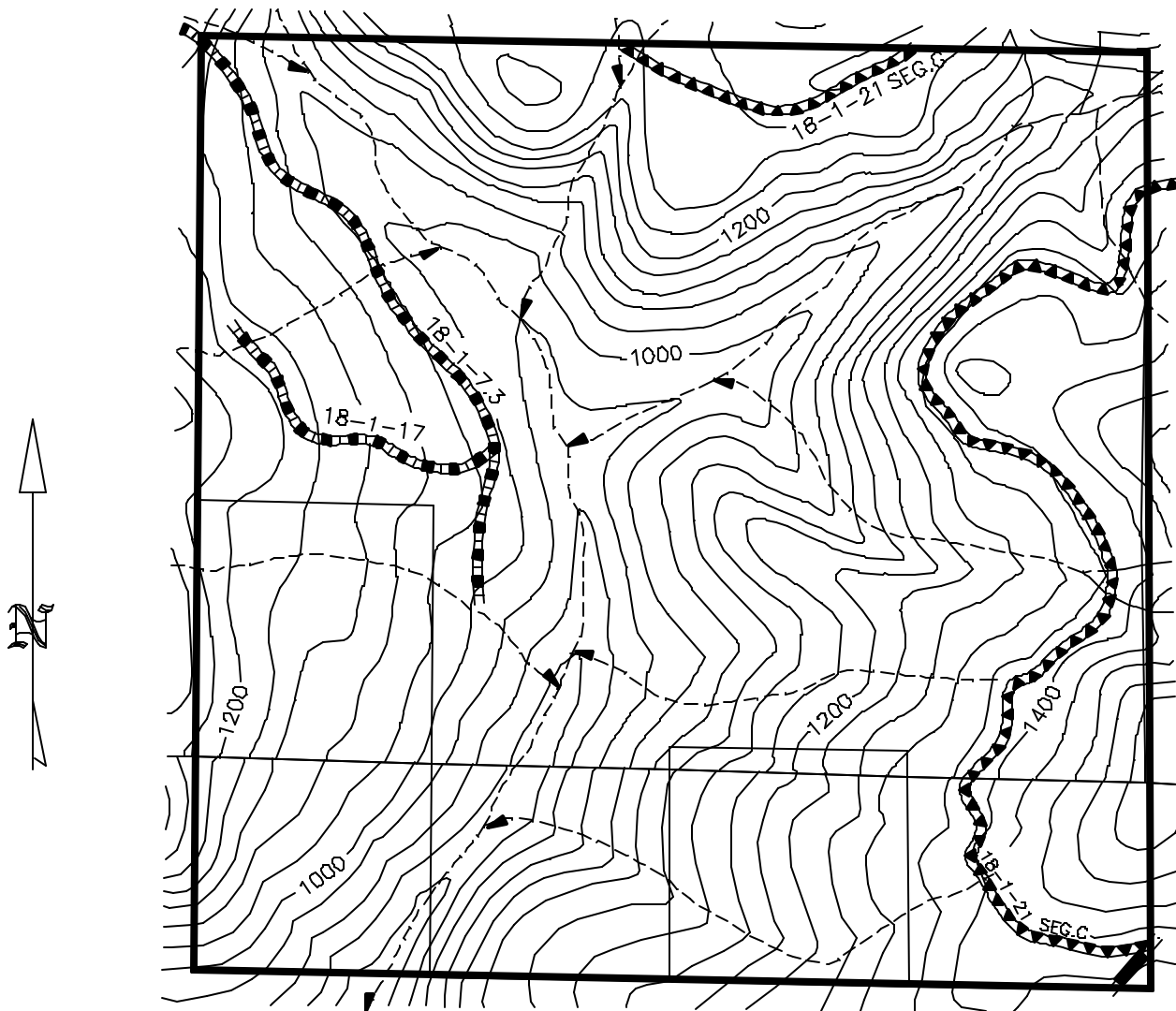
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SCALE

PROPOSED TRANSPORTATION PLAN

McKENZIE RESOURCE AREA
T. 18S R. 1W S. 15
WILL. MER. LANE CO., OREGON

LEGEND

-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  STREAMS








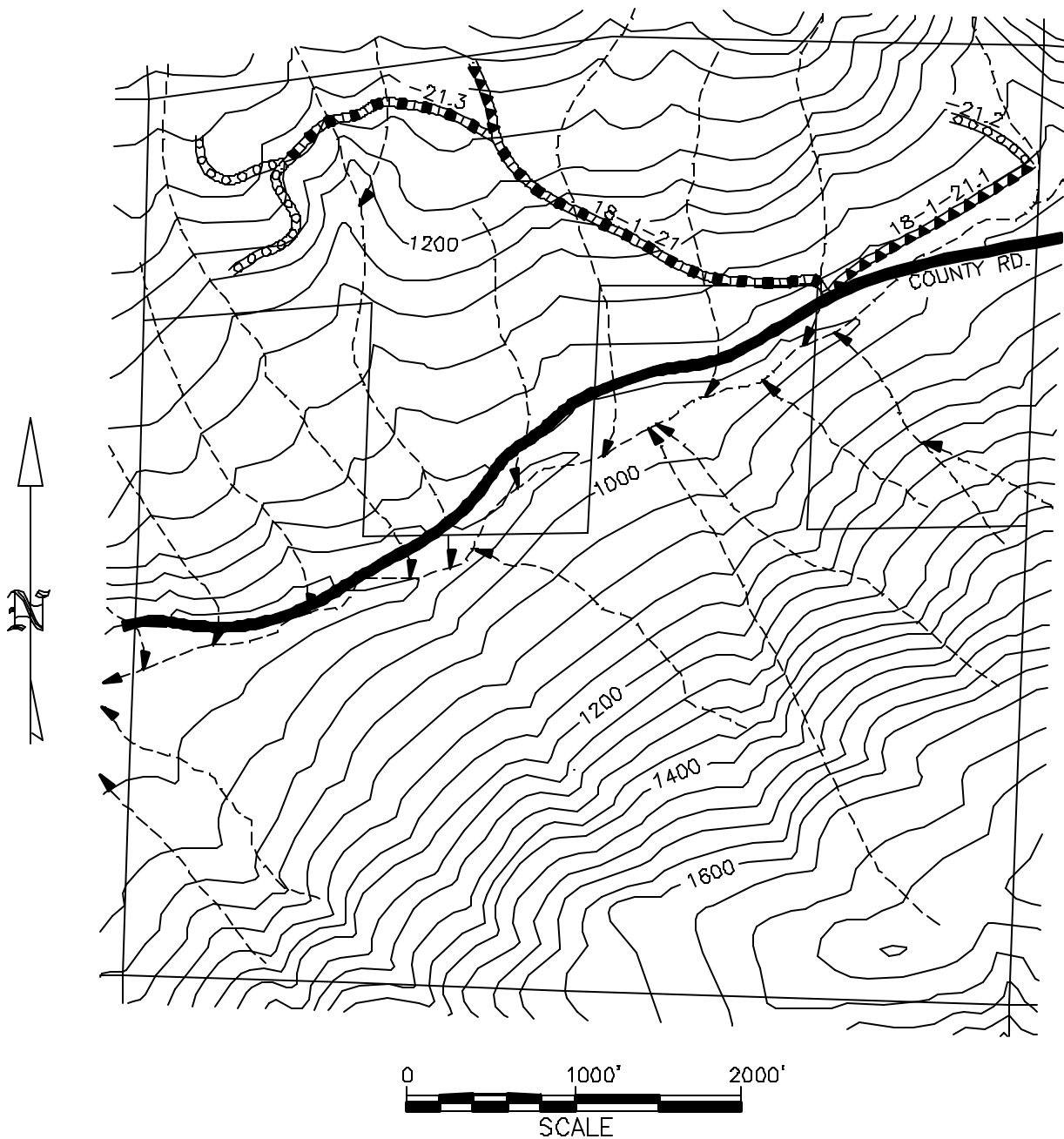
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SCALE

PROPOSED TRANSPORTATION PLAN

McKENZIE RESOURCE AREA
T. 18S R. 1W S. 17
WILL. MER. LANE CO., OREGON

LEGEND






-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  STREAMS

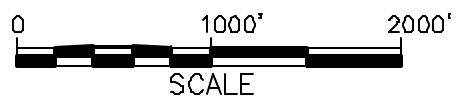
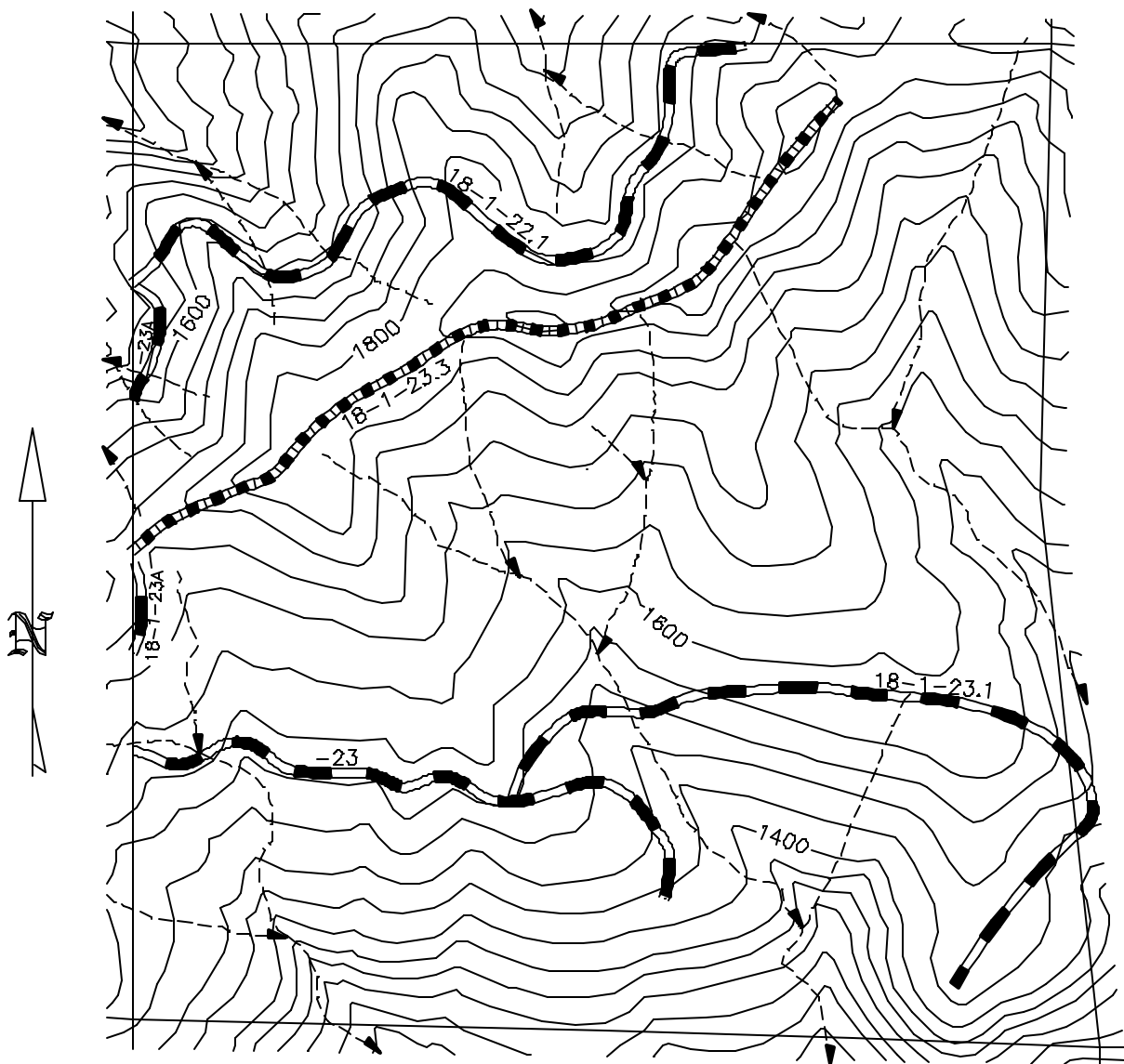


PROPOSED TRANSPORTATION PLAN

McKENZIE RESOURCE AREA
 T. 18S R. 1W S. 21
 WILL. MER. LANE CO., OREGON

LEGEND

-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  STREAMS



PROPOSED TRANSPORTATION PLAN

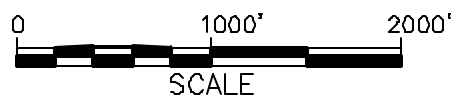
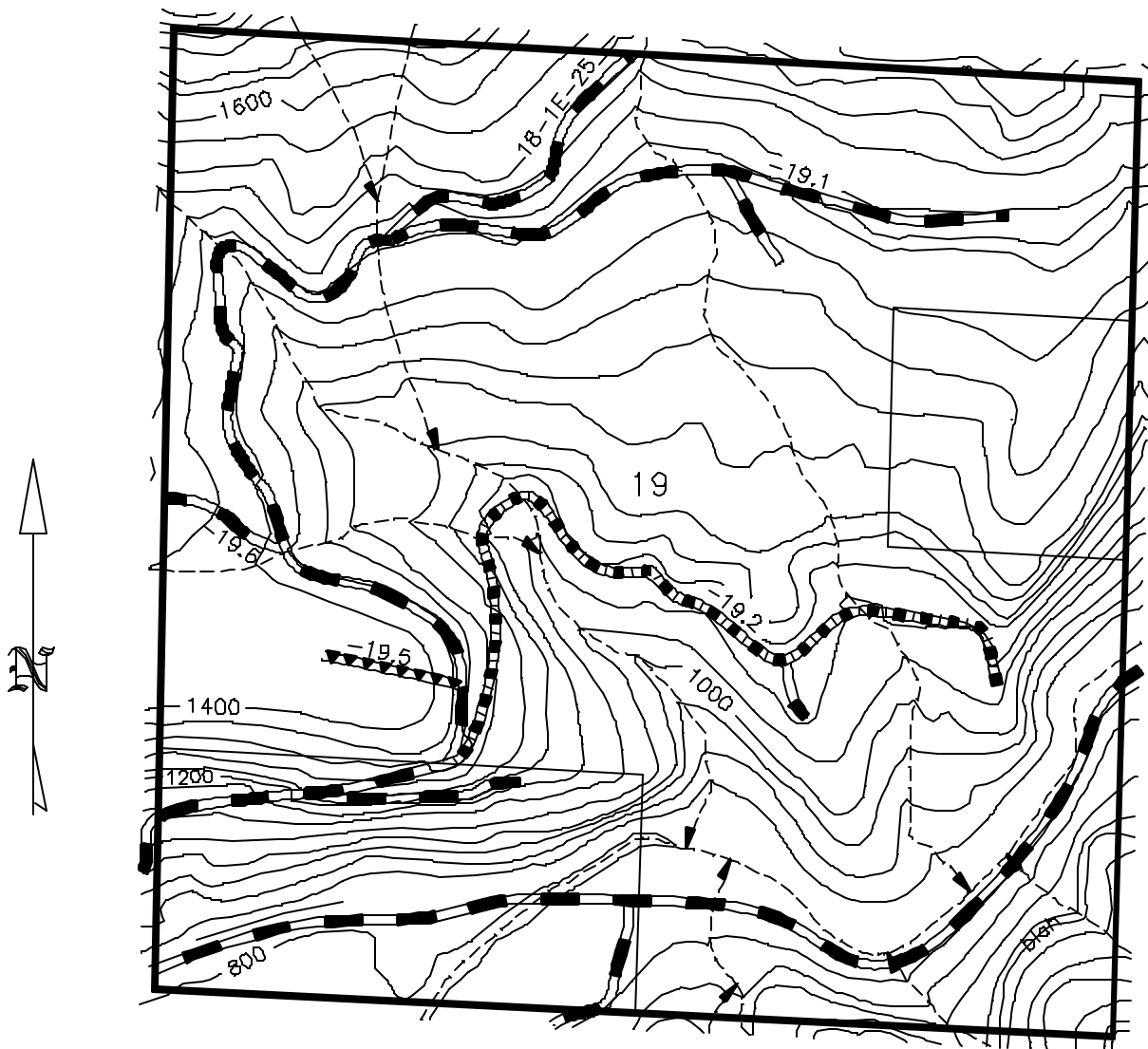
McKENZIE RESOURCE AREA

T. 18S R. 1W S. 23

WILL. MER. LANE CO., OREGON

LEGEND

- ROADS TO BE RETAINED
- - - DECOMMISSION ROADS
- ▲▲▲ FULL DECOMMISSION ROADS
- NATURAL DECOMMISSION ROADS
- - -> STREAMS








PROPOSED TRANSPORTATION PLAN

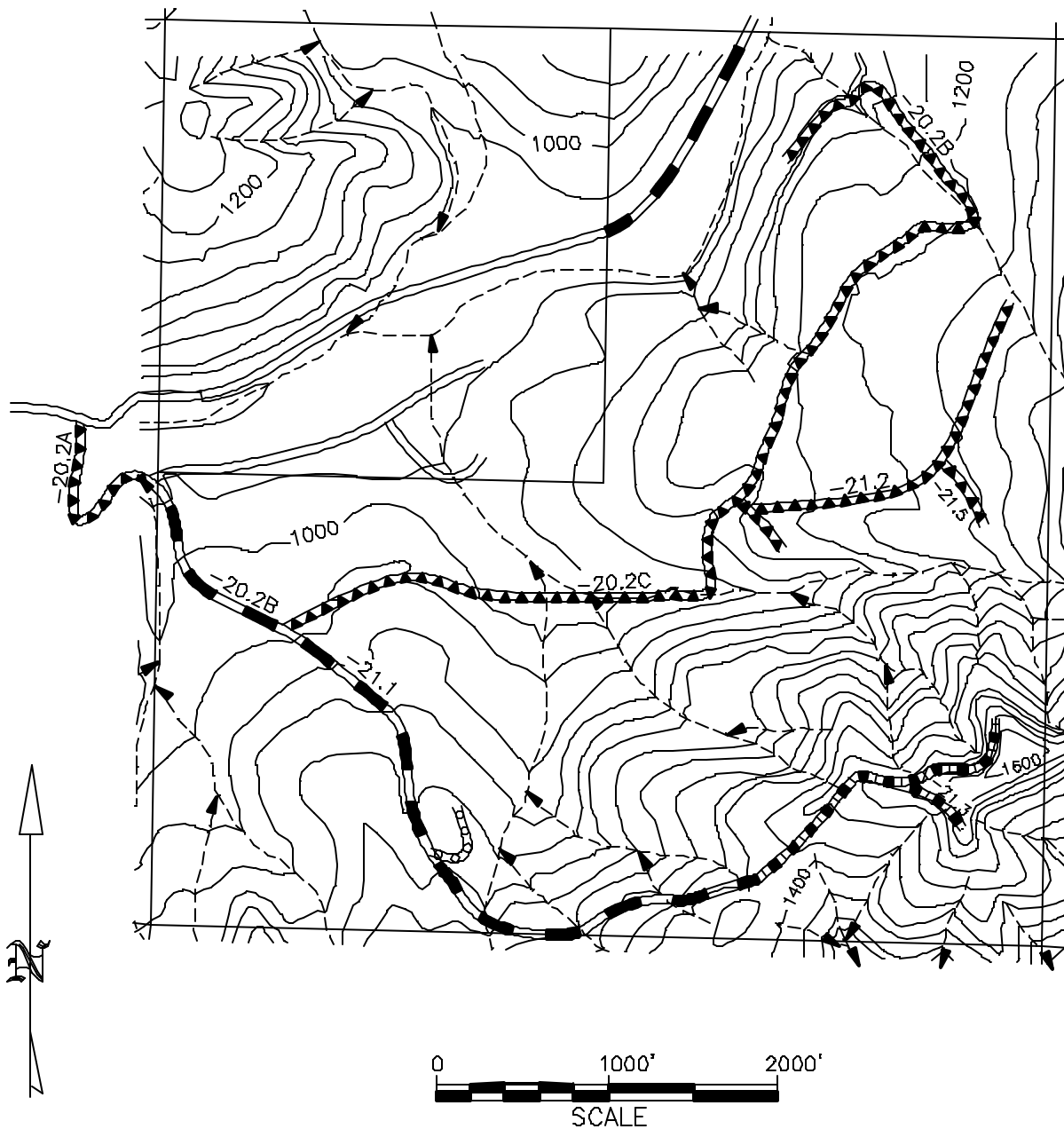
McKENZIE RESOURCE AREA

T. 18S R. 1E S. 19

WILL. MER. LANE CO., OREGON

LEGEND

-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  STREAMS

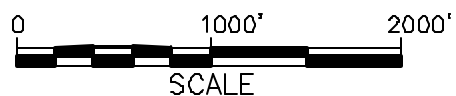
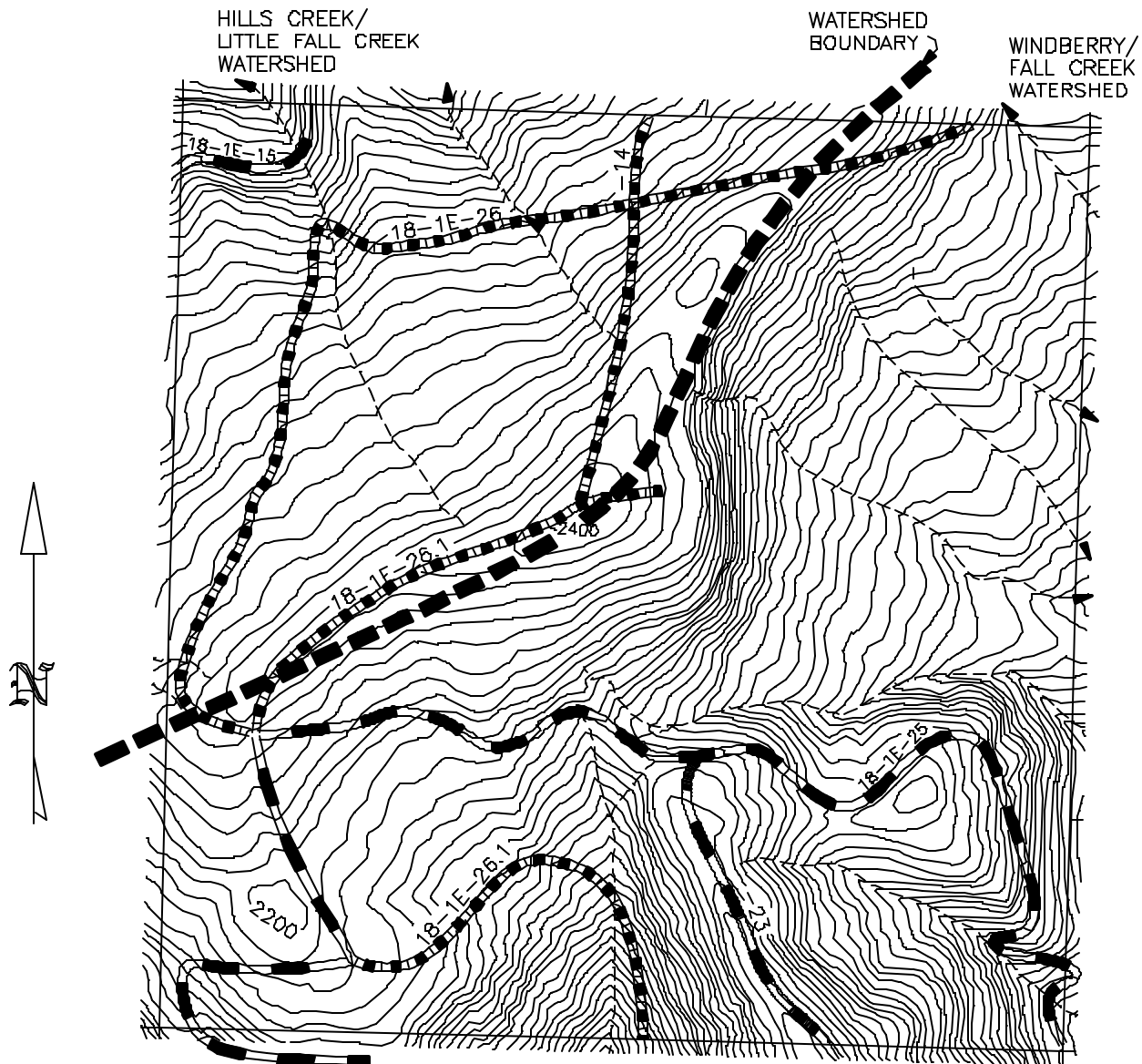


PROPOSED TRANSPORTATION PLAN

McKENZIE RESOURCE AREA
 T. 18S R. 1E S. 21
 WILL. MER. LANE CO., OREGON

LEGEND

- ROADS TO BE RETAINED
- - - DECOMMISSION ROADS
- ▲▲▲ FULL DECOMMISSION ROADS
- ○ ○ NATURAL DECOMMISSION ROADS
- STREAMS








PROPOSED TRANSPORTATION PLAN

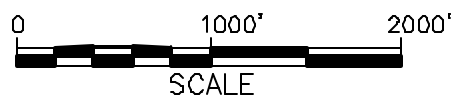
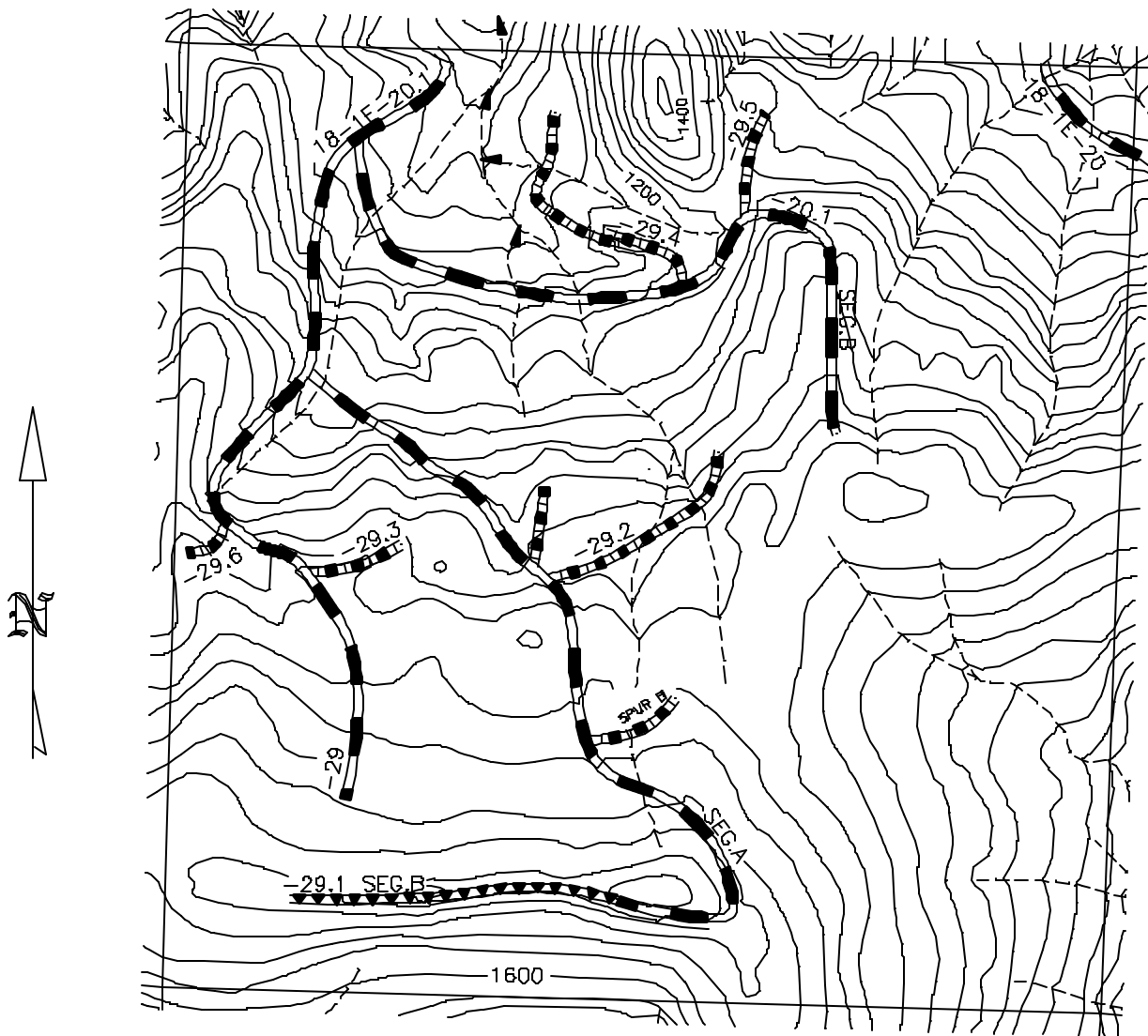
McKENZIE RESOURCE AREA

T. 18S R. 1E S. 23

WILL. MER. LANE CO., OREGON

LEGEND






-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  STREAMS

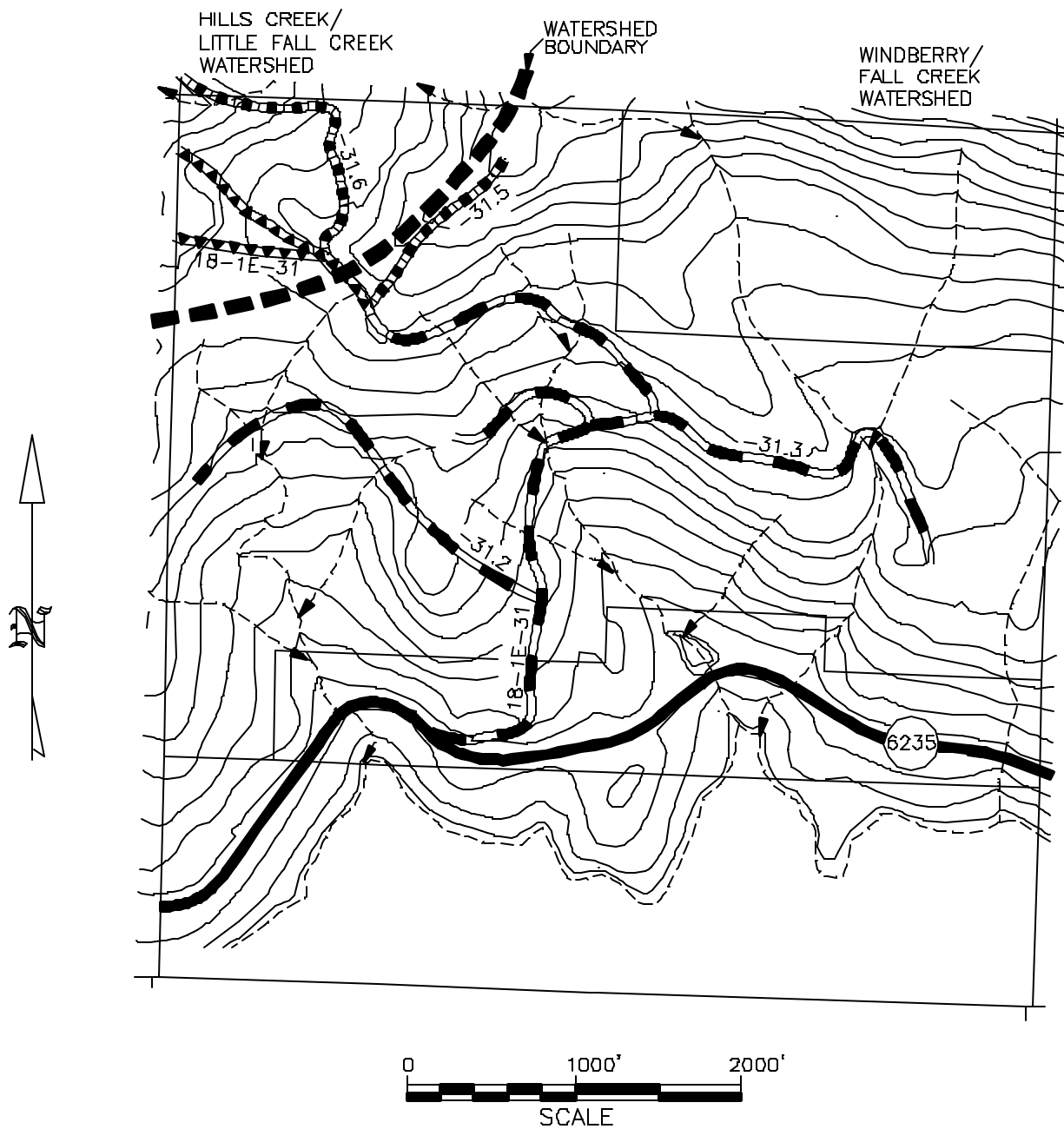


PROPOSED TRANSPORTATION PLAN

McKENZIE RESOURCE AREA
T. 18S R. 1E S. 29
WILL. MER. LANE CO., OREGON

LEGEND

-  ROADS TO BE RETAINED
-  DECOMMISSION ROADS
-  FULL DECOMMISSION ROADS
-  NATURAL DECOMMISSION ROADS
-  STREAMS



PROPOSED TRANSPORTATION PLAN

McKENZIE RESOURCE AREA
T. 18S R. 1E S. 31
WILL. MER. LANE CO., OREGON

LEGEND

- ROADS TO BE RETAINED
- DECOMMISSION ROADS
- FULL DECOMMISSION ROADS
- NATURAL DECOMMISSION ROADS
- COUNTY ROAD (PAVED)
- STREAMS

Aquatic Conservation Strategy Objectives

Forest Service and BLM-administered lands within the range of the Northern spotted owl will be managed to:

1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.
2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include flood plains, wetlands, up slope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.
4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.
5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.
6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.
7. Maintain and restore the timing, variability, and duration of flood plain inundation and water table elevation in meadows and wetlands.
8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distribution of coarse woody debris sufficient to sustain physical complexity and stability.
9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.

**UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE**

Finding of No Significant Impact
for
Implementation of the Hills Creek / Little Fall Creek
Transportation Management Recommendations

Determination:

On the basis of the information contained in the attached Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action or alternative will not have significant environmental impacts not already addressed in the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (April 1994)* and the *Eugene District Record of Decision and Resource Management Plan (June 1995)*, with which this EA is in conformance, and does not, in and of itself, constitute a major federal action affecting the quality of the human environment. Therefore, a new EIS or supplement to the existing EIS is unnecessary and will not be prepared.

Field Manager, McKenzie Resource Area

Date